

=> d que l14

L1 39113 SEA FILE=REGISTRY ABB=ON PLU=ON OC5/ES AND NR>1 AND O>5 AND  
S/ELS AND N/ELS  
L9 STR

Hy~O~Hy~O~Hy~O~Hy  
1 2 3 4 5 6 7

NODE ATTRIBUTES:

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DEFAULT ECLEVEL IS LIMITED

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ECOUNT IS E5 C E1 O AT 5

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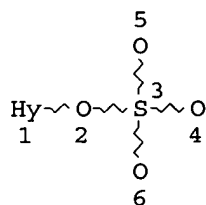
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NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L11 STR



NODE ATTRIBUTES:

CONNECT IS E1 RC AT 4

CONNECT IS E1 RC AT 5

CONNECT IS E1 RC AT 6

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS E5 C E1 O AT 1

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L13 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY SAT AT 4

GGCAT IS MCY SAT AT 6

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS E5 C E1 O AT 4

ECOUNT IS E5 C E1 O AT 6

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L14 488 SEA FILE=REGISTRY SUB=L1 SSS FUL L9 AND L11 AND L13

=> d 114 ide lib 300-330

← only 30 hits  
printed  
- contact  
me if  
you need  
more.

L14 ANSWER 300 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 175890-65-0 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-[13,29-dioxo-29-[[4-[1-oxo-19-  
[[2,3,6-tri-O-sulfo-4-O-(2,3,4,6-tetra-O-sulfo-.beta.-D-glucopyranosyl)-  
.beta.-D-glucopyranosyl]oxy]-5,8,11,14,17-pentaoxa-2-azanonadec-1-  
yl]phenyl]amino]-3,6,9,15,18,21,24-heptaosa-27-thia-12-azanonacos-1-yl]-  
2,3-di-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-  
methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-  
.alpha.-D-glucopyranosyl-(1.fwdarw.4)-2,3-di-O-methyl-.alpha.-L-  
idopyranuronosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate) (9CI) (CA  
INDEX NAME)

OTHER NAMES:

CN Org 36764

FS STEREOSEARCH

MF C88 H149 N3 O96 S15

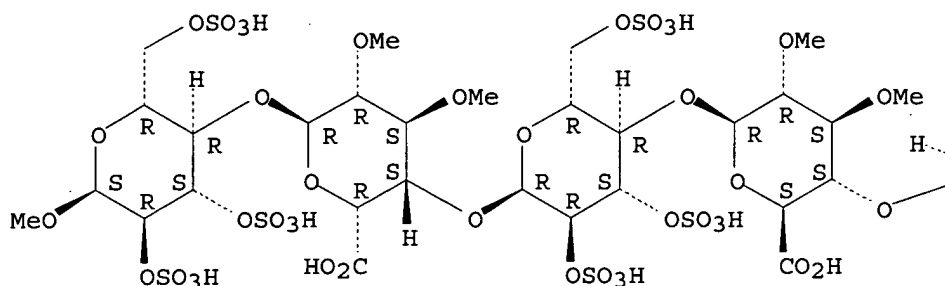
CI COM

SR CA

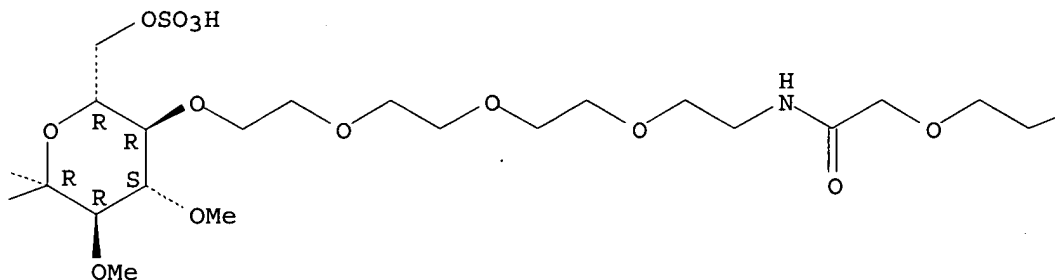
LC STN Files: BIOSIS, CA, CAPLUS

Absolute stereochemistry.

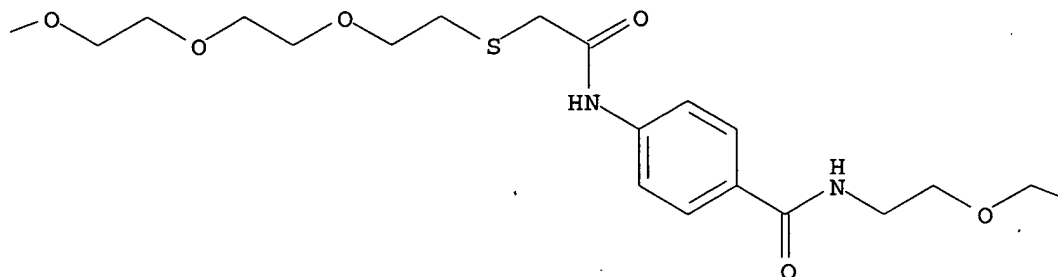
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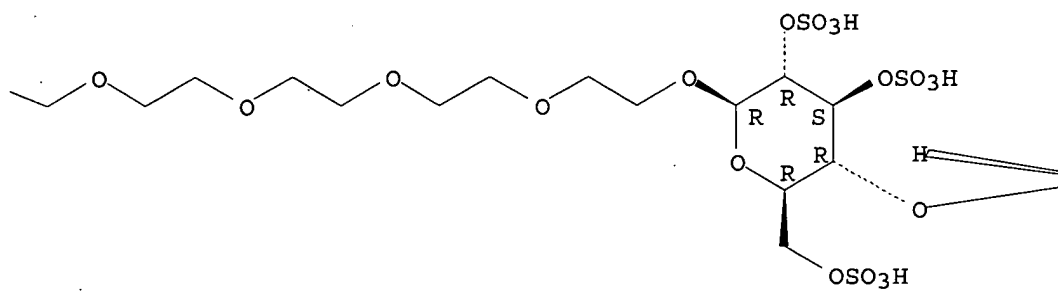
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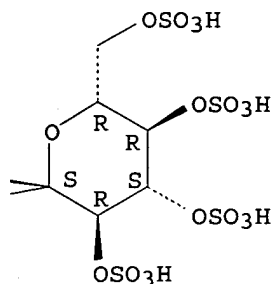
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PAGE 1-D



PAGE 1-E



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

4 REFERENCES IN FILE CA (1907 TO DATE)  
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

## REFERENCE 1

ACCESSION NUMBER: 134:65984 CA  
TITLE: Pre-clinical pharmacological profile of the novel glycoconjugate Org 36764 with both factor Xa and thrombin (IIa) inhibitory activities  
AUTHOR(S): Vogel, Gerard M. T.; Van Amsterdam, Ronald G. M.; Van Dinther, Theo G.; Tromp, Marijke; Meuleman, Dirk G.  
CORPORATE SOURCE: Scientific Development Group, N.V. Organon, Oss, 5340 BH, Neth.  
SOURCE: Thrombosis and Haemostasis (2000), 84(4), 611-620  
CODEN: THHADQ; ISSN: 0340-6245  
PUBLISHER: F. K. Schattauer Verlagsgesellschaft mbH  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

## REFERENCE 2

ACCESSION NUMBER: 132:3518 CA  
TITLE: Synthesis of heparin-like antithrombotics having perphosphorylated thrombin binding domains  
AUTHOR(S): Buijsman, R. C.; Basten, J. E. M.; Dreef-Tromp, C. M.; van der Marel, G. A.; van Boeckel, C. A. A.; van Boom, J. H.  
CORPORATE SOURCE: Leiden Institute of Chemistry, Gorlaeus Laboratories, Leiden, 2300 RA, Neth.  
SOURCE: Bioorganic & Medicinal Chemistry (1999), 7(9), 1881-1890  
CODEN: BMECEP; ISSN: 0968-0896  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal

LANGUAGE: English.  
 REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

## REFERENCE 3

ACCESSION NUMBER: 129:109294 CA  
 TITLE: In vitro evaluation of synthetic heparin-like  
 conjugates comprising different thrombin binding  
 domains  
 AUTHOR(S): Basten, J. E. M.; Dreef-Tromp, C. M.; De Wijs, B.; Van  
 Boeckel, C. A. A.  
 CORPORATE SOURCE: N.V. Organon Scientific Development Group, Oss, 5340  
 BH, Neth.  
 SOURCE: Bioorganic & Medicinal Chemistry Letters (1998),  
 8(10), 1201-1206  
 CODEN: BMCLE8; ISSN: 0960-894X  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

## REFERENCE 4

ACCESSION NUMBER: 124:290100 CA  
 TITLE: Synthesis of tailor-made glycoconjugates showing AT  
 III-mediated inhibition of blood coagulation factors  
 XA and thrombin  
 AUTHOR(S): Westerduin, Pieter; Basten, Jan E. M.; Broekhoven,  
 Marc A.; de Kimpe, Vera; Kuijpers, Will H. A.; van  
 Boeckel, Constant A. A.  
 CORPORATE SOURCE: Dep. Medicinal Chemistry, N. V. Organon, Oss, 5340 BH,  
 Neth.  
 SOURCE: Angewandte Chemie, International Edition in English  
 (1996), 35(3), 331-33  
 CODEN: ACIEAY; ISSN: 0570-0833  
 PUBLISHER: VCH  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

L14 ANSWER 301 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 175890-64-9 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-[13,29-dioxo-29-[[4-[1-oxo-19-[(O-  
 2,3,4,6-tetra-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3,6-tri-O-  
 sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-sulfo-.beta.-D-  
 glucopyranosyl)oxy]-5,8,11,14,17-pentaoxa-2-azanonadec-1-yl]phenyl]amino]-  
 2,3,6,9,15,18,21,24-heptaoxa-27-thia-12-azanonacos-1-yl]-2,3-di-O-methyl-6-  
 O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-  
 glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-  
 glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-  
 (1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate) (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C94 H159 N3 O110 S18

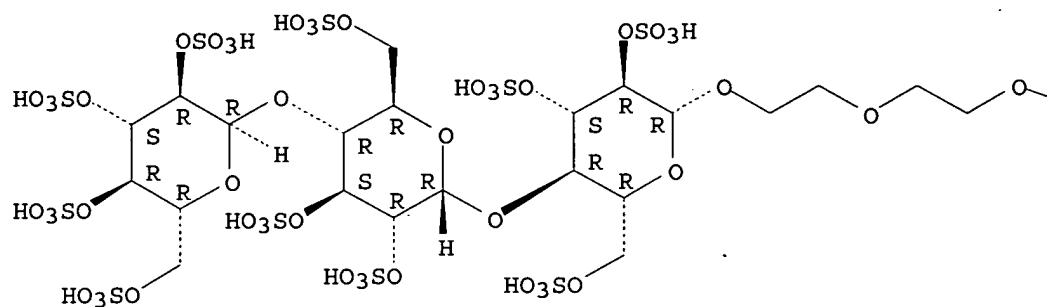
CI COM

SR CA

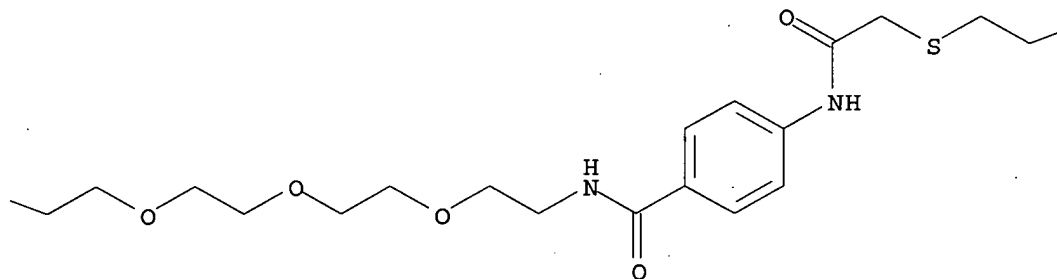
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

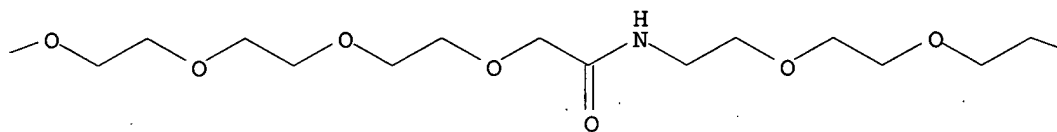
PAGE 1-A



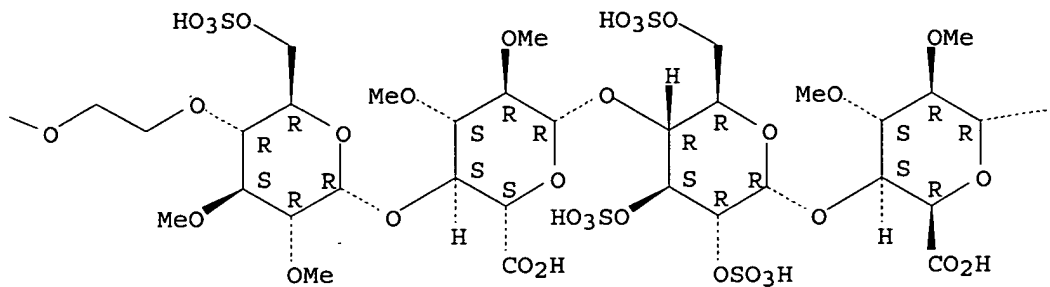
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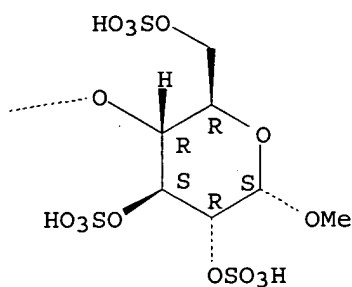
PAGE 1-C



PAGE 1-D



PAGE 1-E



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1907 TO DATE)  
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

## REFERENCE 1

ACCESSION NUMBER: 132:3518 CA  
 TITLE: Synthesis of heparin-like antithrombotics having perphosphorylated thrombin binding domains  
 AUTHOR(S): Buijsman, R. C.; Basten, J. E. M.; Dreef-Tromp, C. M.; van der Marel, G. A.; van Boeckel, C. A. A.; van Boom, J. H.  
 CORPORATE SOURCE: Leiden Institute of Chemistry, Gorlaeus Laboratories, Leiden, 2300 RA, Neth.  
 SOURCE: Bioorganic & Medicinal Chemistry (1999), 7(9), 1881-1890  
 CODEN: BMECEP; ISSN: 0968-0896  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

## REFERENCE 2

ACCESSION NUMBER: 129:109294 CA  
 TITLE: In vitro evaluation of synthetic heparin-like conjugates comprising different thrombin binding

domains  
 AUTHOR(S): Basten, J. E. M.; Dreef-Tromp, C. M.; De Wijs, B.; Van Boeckel, C. A. A.  
 CORPORATE SOURCE: N.V. Organon Scientific Development Group, Oss, 5340 BH, Neth.  
 SOURCE: Bioorganic & Medicinal Chemistry Letters (1998), 8(10), 1201-1206  
 CODEN: BMCLE8; ISSN: 0960-894X  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

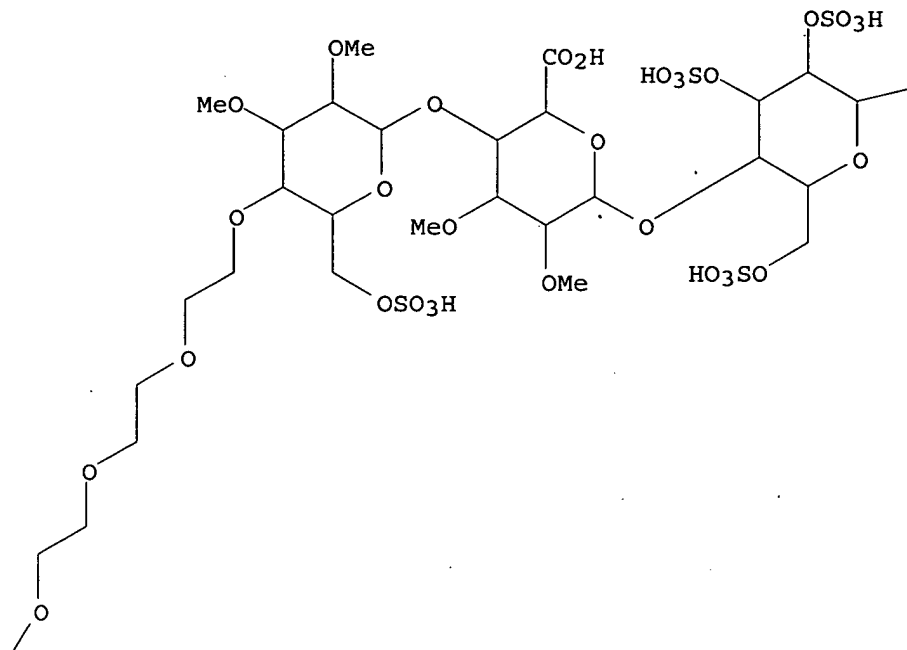
## REFERENCE 3

ACCESSION NUMBER: 124:290100 CA  
 TITLE: Synthesis of tailor-made glycoconjugates showing AT III-mediated inhibition of blood coagulation factors XA and thrombin  
 AUTHOR(S): Westerduin, Pieter; Basten, Jan E. M.; Broekhoven, Marc A.; de Kimpe, Vera; Kuijpers, Will H. A.; van Boeckel, Constant A. A.  
 CORPORATE SOURCE: Dep. Medicinal Chemistry, N. V. Organon, Oss, 5340 BH, Neth.  
 SOURCE: Angewandte Chemie, International Edition in English (1996), 35(3), 331-33  
 CODEN: ACIEAY; ISSN: 0570-0833  
 PUBLISHER: VCH  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

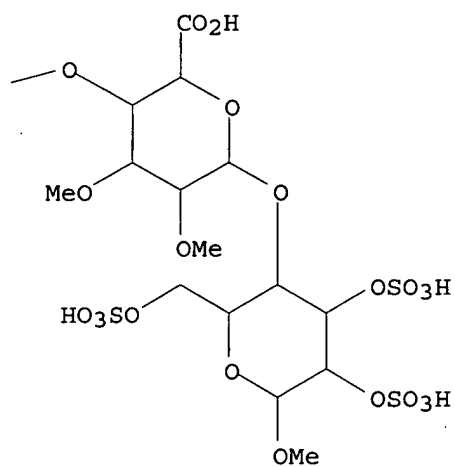
L14 ANSWER 302 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 175722-97-1 REGISTRY  
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 (CA INDEX NAME)  
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 SR CA  
 LC STN Files: CA, CAPLUS



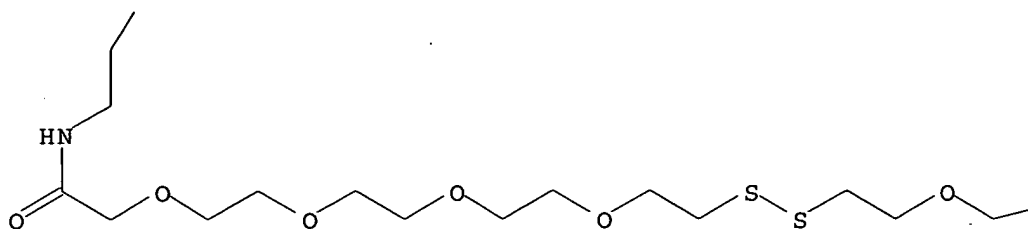
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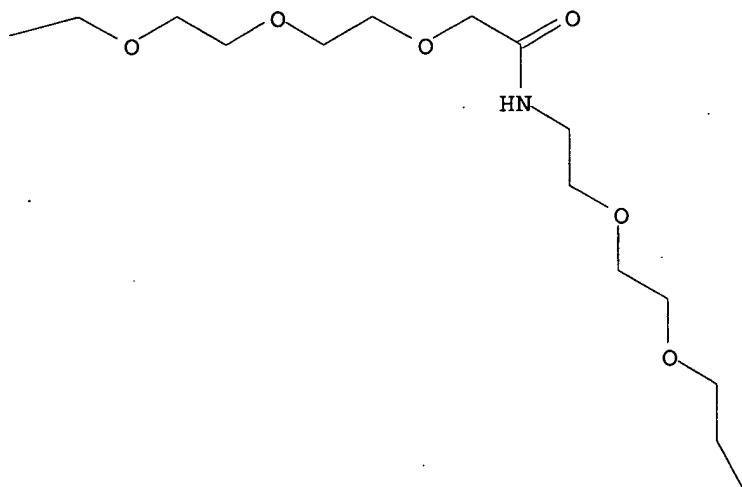
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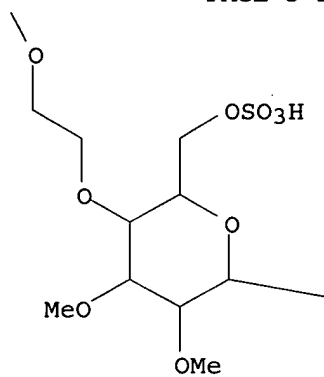
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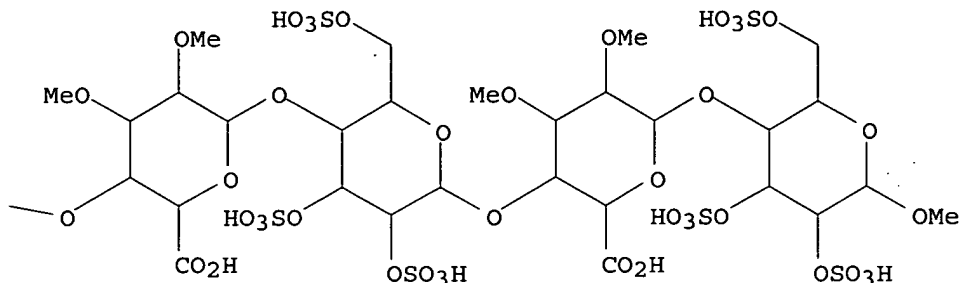
PAGE 2-B



PAGE 3-B



PAGE 3-C



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

## REFERENCE 1

ACCESSION NUMBER: 124:290100 CA  
 TITLE: Synthesis of tailor-made glycoconjugates showing AT  
 III-mediated inhibition of blood coagulation factors  
 XA and thrombin  
 AUTHOR(S): Westerduin, Pieter; Basten, Jan E. M.; Broekhoven,  
 Marc A.; de Kimpe, Vera; Kuijpers, Will H. A.; van  
 Boeckel, Constant A. A.  
 CORPORATE SOURCE: Dep. Medicinal Chemistry, N. V. Organon, Oss, 5340 BH,  
 Neth.  
 SOURCE: Angewandte Chemie, International Edition in English  
 (1996), 35(3), 331-33  
 CODEN: ACIEAY; ISSN: 0570-0833  
 PUBLISHER: VCH  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

L14 ANSWER 303 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 175722-94-8 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-(13,28-dioxo-3,6,9,15,18,21,24-  
 hepta-oxa-27-thia-12-azanonacos-1-yl)-2,3-di-O-methyl-6-O-sulfo-.alpha.-D-  
 glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-  
 (1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-  
 2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-,  
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FS STEREOSEARCH

MF C57 H99 N O58 S8

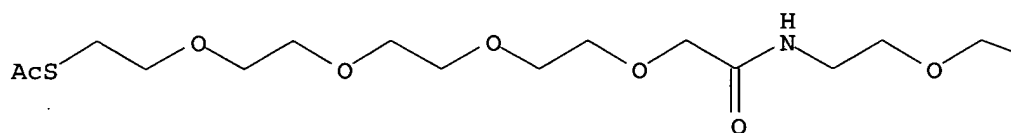
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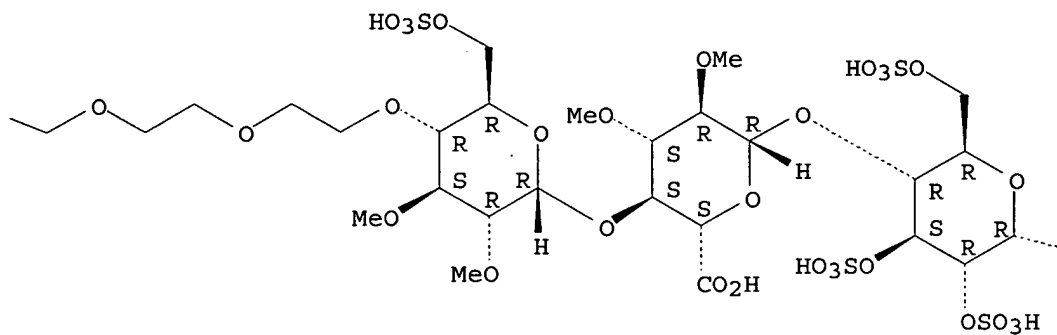
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

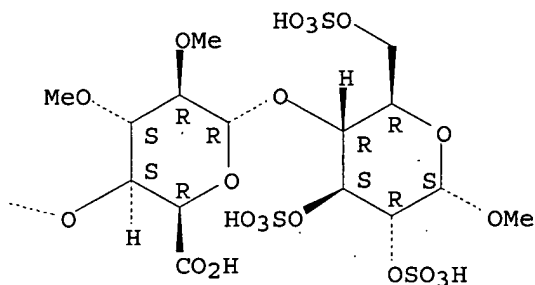
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PAGE 1-C



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3 REFERENCES IN FILE CA (1907 TO DATE)

3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

## REFERENCE 1

ACCESSION NUMBER: 132:3518 CA  
 TITLE: Synthesis of heparin-like antithrombotics having  
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 AUTHOR(S): Buijsman, R. C.; Basten, J. E. M.; Dreef-Tromp, C. M.;  
 van der Marel, G. A.; van Boeckel, C. A. A.; van Boom,  
 J. H.  
 CORPORATE SOURCE: Leiden Institute of Chemistry, Gorlaeus Laboratories,

SOURCE: Leiden, 2300 RA, Neth.  
 Bioorganic & Medicinal Chemistry (1999), 7(9),  
 1881-1890  
 CODEN: BMECEP; ISSN: 0968-0896  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

## REFERENCE 2

ACCESSION NUMBER: 129:109294 CA  
 TITLE: In vitro evaluation of synthetic heparin-like  
 conjugates comprising different thrombin binding  
 domains  
 AUTHOR(S): Basten, J. E. M.; Dreef-Tromp, C. M.; De Wijs, B.; Van  
 Boeckel, C. A. A.  
 CORPORATE SOURCE: N.V. Organon Scientific Development Group, Oss, 5340  
 BH, Neth.  
 SOURCE: Bioorganic & Medicinal Chemistry Letters (1998),  
 8(10), 1201-1206  
 CODEN: BMCLE8; ISSN: 0960-894X  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

## REFERENCE 3

ACCESSION NUMBER: 124:290100 CA  
 TITLE: Synthesis of tailor-made glycoconjugates showing AT  
 III-mediated inhibition of blood coagulation factors  
 XA and thrombin  
 AUTHOR(S): Westerduin, Pieter; Basten, Jan E. M.; Broekhoven,  
 Marc A.; de Kimpe, Vera; Kuijpers, Will H. A.; van  
 Boeckel, Constant A. A.  
 CORPORATE SOURCE: Dep. Medicinal Chemistry, N. V. Organon, Oss, 5340 BH,  
 Neth.  
 SOURCE: Angewandte Chemie, International Edition in English  
 (1996), 35(3), 331-33  
 CODEN: ACIEAY; ISSN: 0570-0833  
 PUBLISHER: VCH  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

L14 ANSWER 304 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 175722-93-7 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-(13,28-dioxo-12-sulfo-  
 3,6,9,15,18,21,24-heptaaxa-27-thia-12-azanonacos-1-yl)-2,3-di-O-methyl-6-O-  
 sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-  
 glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-  
 glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-  
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FS STEREOSEARCH

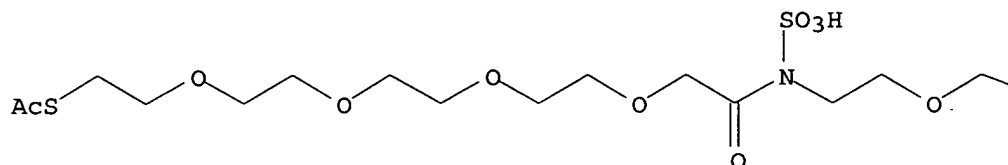
MF C57 H99 N O61 S9

SR CA

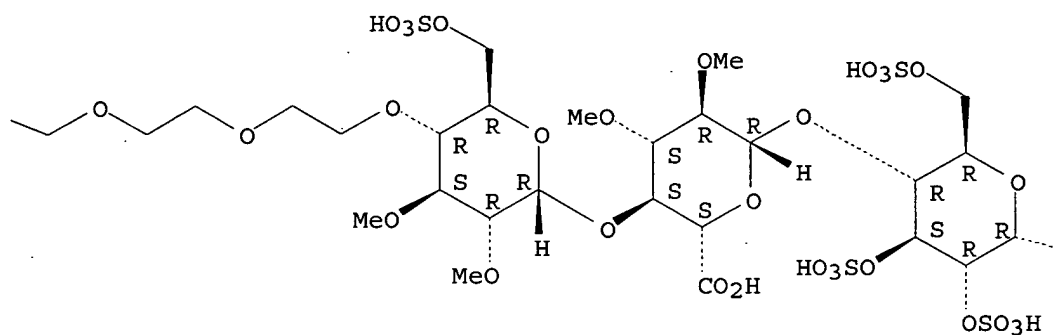
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

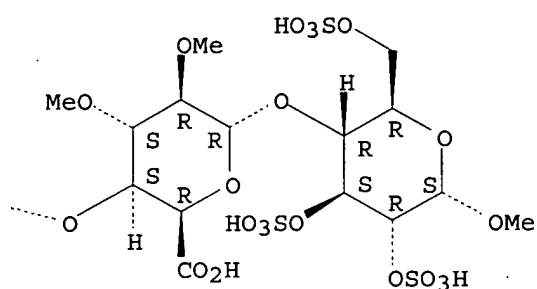
PAGE 1-A



PAGE 1-B



PAGE 1-C



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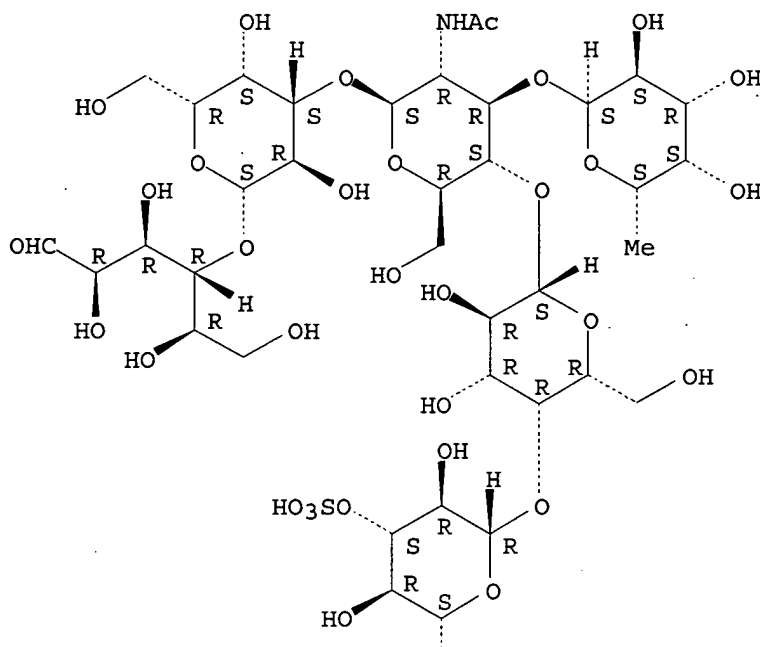
ACCESSION NUMBER: 124:290100 CA  
 TITLE: Synthesis of tailor-made glycoconjugates showing AT  
 III-mediated inhibition of blood coagulation factors  
 XA and thrombin

AUTHOR(S): Westerduin, Pieter; Basten, Jan E. M.; Broekhoven, Marc A.; de Kimpe, Vera; Kuijpers, Will H. A.; van Boeckel, Constant A. A.  
CORPORATE SOURCE: Dep. Medicinal Chemistry, N. V. Organon, Oss, 5340 BH, Neth.  
SOURCE: Angewandte Chemie, International Edition in English (1996), 35(3), 331-33  
CODEN: ACIEAY; ISSN: 0570-0833  
PUBLISHER: VCH  
DOCUMENT TYPE: Journal  
LANGUAGE: English

L14 ANSWER 305 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 174828-77-4 REGISTRY  
CN D-Glucose, O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)-O-[O-3-O-sulfo-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
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SR CA  
LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

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PAGE 2-A

CO<sub>2</sub>H

PAGE 2-A

:  
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1 REFERENCES IN FILE CA (1907 TO DATE)  
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 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

## REFERENCE 1

ACCESSION NUMBER: 124:261616 CA  
 TITLE: Synthesis of sialic acid-contg. oligosaccharide glycopeptides as receptors and enzyme inhibitors  
 INVENTOR(S): Monsigny, Michel; Roche, Annie-Claude; Sdiqui, Nadia; Mayer, Roger  
 PATENT ASSIGNEE(S): I.D.M. Immuno-Designed Molecules, Indonesia  
 SOURCE: PCT Int. Appl., 74 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9600229	A1	19960104	WO 1995-FR790	19950615
W:	AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT			
RW:	KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
FR 2721612	A1	19951229	FR 1994-7738	19940623
FR 2721612	B1	19960809		
CA 2192073	AA	19960104	CA 1995-2192073	19950615
AU 9527962	A1	19960119	AU 1995-27962	19950615
AU 705200	B2	19990520		
EP 766689	A1	19970409	EP 1995-923392	19950615
EP 766689	B1	19991020		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE			
JP 10502068	T2	19980224	JP 1995-502856	19950615
AT 185810	E	19991115	AT 1995-923392	19950615
US 6251858	B1	20010626	US 1996-591481	19960221
PRIORITY APPLN. INFO.:			FR 1994-7738	19940623
			WO 1995-FR790	19950615

L14 ANSWER 306 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 174360-63-5 REGISTRY

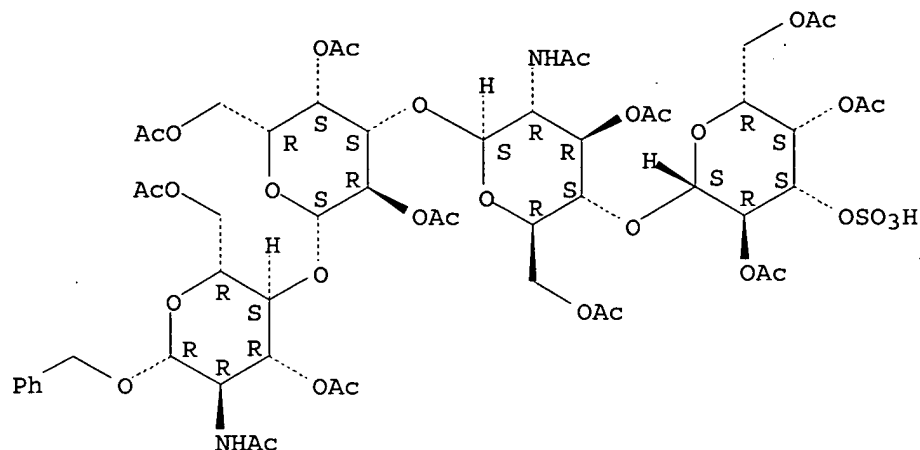
CN .beta.-D-Glucopyranoside, phenylmethyl O-2,4,6-tri-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3,6-di-O-acetyl-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.3)-O-2,4,6-tri-O-acetyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-, 3,6-diacetate (9CI) (CA INDEX NAME)

FS STEREOSEARCH



MF C55 H74 N2 O34 S  
 SR CA  
 LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

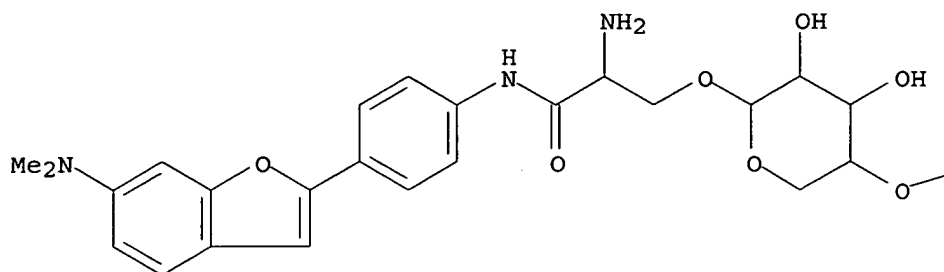
1 REFERENCES IN FILE CA (1907 TO DATE)  
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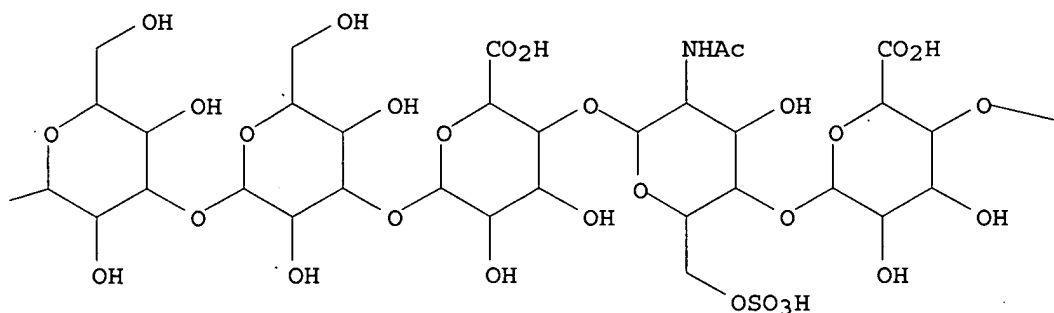
ACCESSION NUMBER: 124:202798 CA  
 TITLE: Synthesis of precursors for the dimeric 3-O-SO<sub>3</sub>Na  
 LewisX and LewisA structures  
 AUTHOR(S): Reddy, Gurijala V.; Jain, Rakesh K.; Locke, Robert D.;  
 Matta, Khushi L.  
 CORPORATE SOURCE: Dep. Gynecologic Oncology, Roswell Park Cancer Inst.,  
 Buffalo, NY, 14263, USA  
 SOURCE: Carbohydrate Research (1996), 280(2), 261-76  
 CODEN: CRBRAT; ISSN: 0008-6215  
 PUBLISHER: Elsevier  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

L14 ANSWER 307 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 174200-77-2 REGISTRY  
 CN Propanamide, 2-amino-3-[[[O-4-deoxy-2-O-sulfo-.alpha.-L-threo-hex-4-  
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 glucopyranosyl-(1.fwdarw.4)-O-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-O-2-  
 (acetamino)-2-deoxy-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-  
 .beta.-D-glucopyranuronosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-  
 (1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-  
 xylopyranosyl]oxy]-N-[4-[6-(dimethylamino)-2-benzofuranyl]phenyl]-, (S)-  
 (9CI) (CA INDEX NAME)  
 MF C70 H97 N5 O50 S2  
 SR CA  
 LC STN Files: CA, CAPLUS

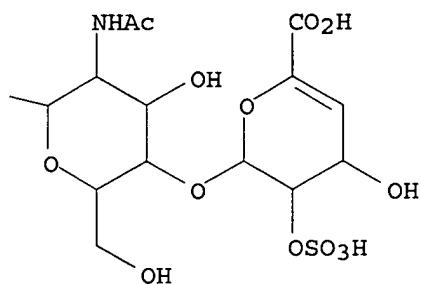
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PAGE 1-B



PAGE 1-C



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

## REFERENCE 1

ACCESSION NUMBER: 124:197648 CA  
TITLE: Strategy for the sequence analysis of heparin  
AUTHOR(S): Liu, Jian; Desai, Umesh R.; Han, Xue-Jun; Toida,

CORPORATE SOURCE: Toshihiko; Linhardt, Robert J.  
College Pharmacy, Univ. Iowa, Iowa City, IA, 52242,  
USA  
SOURCE: Glycobiology (1995), 5(8), 765-74  
CODEN: GLYCE3; ISSN: 0959-6658  
PUBLISHER: Oxford University Press  
DOCUMENT TYPE: Journal  
LANGUAGE: English

L14 ANSWER 308 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 174200-76-1 REGISTRY

CN Propanamide, 2-amino-3-[[O-4-deoxy-2-O-sulfo-.alpha.-L-threo-hex-4-enopyranuronosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-xylopyranosyl]oxy]-N-[4-[6-(dimethylamino)-2-benzofuranyl]phenyl]-, (S)- (9CI) (CA INDEX NAME)

FS STEREOSEARCH

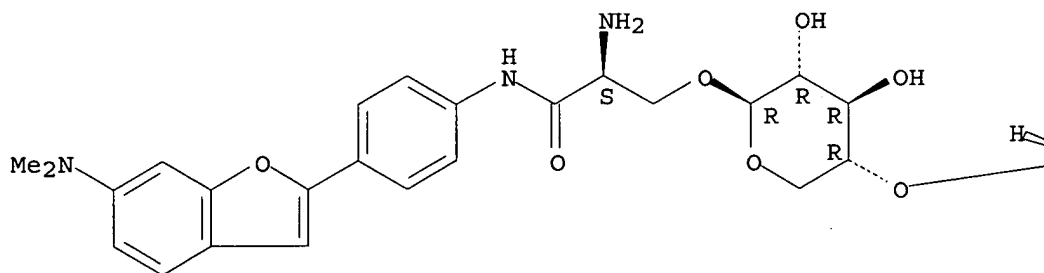
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SR CA

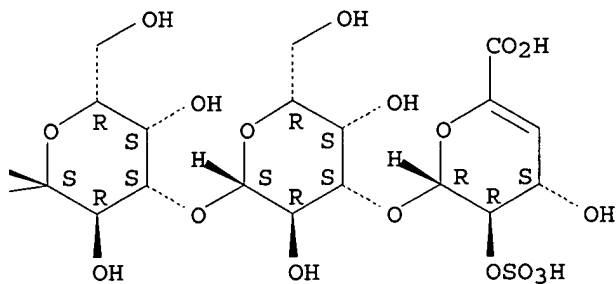
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 125:61288 CA  
 TITLE: Method for removal of hexenuronic acid groups in  
 cellulose pulp by heat treatment  
 INVENTOR(S): Vuorinen, Tapani; Buchert, Johanna; Teleman, Anita;  
 Tenkanen, Maija  
 PATENT ASSIGNEE(S): A. Ahlstrom Corporation, Finland  
 SOURCE: PCT Int. Appl., 32 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9612063	A1	19960425	WO 1995-FI566	19951012
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
FI 9404808	A	19960414	FI 1994-4808	19941013
CA 2160430	AA	19960414	CA 1995-2160430	19951012
AU 9536559	A1	19960506	AU 1995-36559	19951012
EP 786029	A1	19970730	EP 1995-934164	19951012
EP 786029	B1	20000614		
R: DE, ES, PT, SE				
CN 1168706	A	19971224	CN 1995-196599	19951012
CN 1075143	B	20011121		
JP 10508346	T2	19980818	JP 1995-512965	19951012
RU 2126862	C1	19990227	RU 1997-107353	19951012
ES 2147303	T3	20000901	ES 1995-934164	19951012
PT 786029	T	20000929	PT 1995-95934164	19951012
SE 9503595	A	19960414	SE 1995-3595	19951013
SE 518080	C2	20020820		
ZA 9508655	A	19960513	ZA 1995-8655	19951013
BR 9505211	A	19970916	BR 1995-5211	19951117
FI 9701508	A	19970410	FI 1997-1508	19970410
NO 9701682	A	19970611	NO 1997-1682	19970411
PRIORITY APPLN. INFO.:			FI 1994-4808	19941013
			WO 1995-FI566	19951012

## REFERENCE 2

ACCESSION NUMBER: 124:197648 CA  
 TITLE: Strategy for the sequence analysis of heparin  
 AUTHOR(S): Liu, Jian; Desai, Umesh R.; Han, Xue-Jun; Toida, Toshihiko; Linhardt, Robert J.  
 CORPORATE SOURCE: College Pharmacy, Univ. Iowa, Iowa City, IA, 52242, USA  
 SOURCE: Glycobiology (1995), 5(8), 765-74  
 CODEN: GLYCE3; ISSN: 0959-6658  
 PUBLISHER: Oxford University Press  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

L14 ANSWER 309 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 174176-02-4 REGISTRY

CN D-Glucose, O-4-deoxy-2-O-sulfo-.alpha.-L-threo-hex-4-enopyranuronosyl-(1.fwdarw.4)-O-2-deoxy-6-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-O-2-deoxy-6-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-O-2-deoxy-6-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-O-2-deoxy-2-(sulfoamino)-, 6-(hydrogen sulfate) (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C60 H95 N5 O95 S15

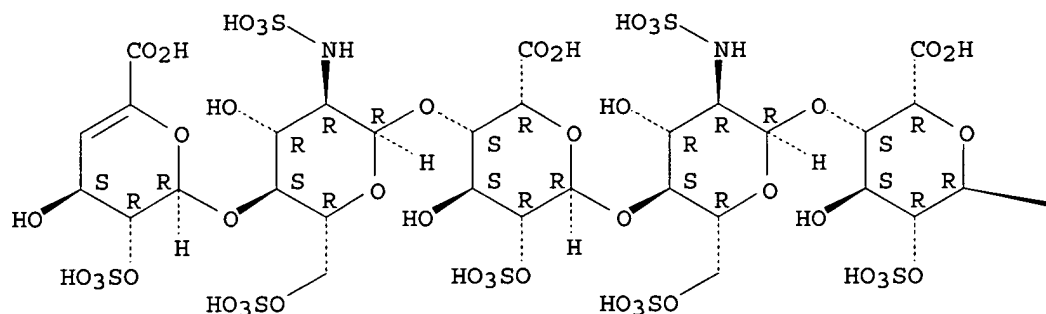
CI COM

SR CA

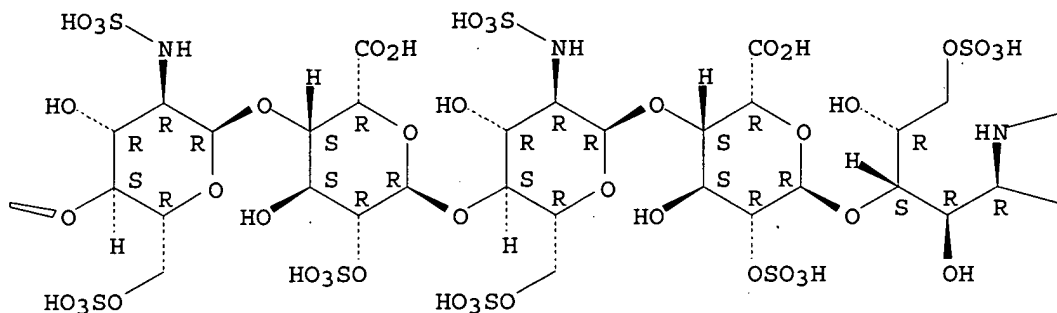
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



—SO<sub>3</sub>H

—CHO

**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

3 REFERENCES IN FILE CA (1907 TO DATE)  
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 130:34904 CA  
TITLE: Mass spectrometric evidence for the enzymic mechanism  
of the depolymerization of heparin-like  
glycosaminoglycans by heparinase II  
AUTHOR(S): Rhomberg, Andrew J.; Shriver, Zachary; Biemann, Klaus;  
Sasisekharan, Ram  
CORPORATE SOURCE: Department of Chemistry, Massachusetts Institute of  
Technology, Cambridge, MA, 02139, USA  
SOURCE: Proceedings of the National Academy of Sciences of the  
United States of America (1998), 95(21), 12232-12237  
CODEN: PNASA6; ISSN: 0027-8424  
PUBLISHER: National Academy of Sciences  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 2

ACCESSION NUMBER: 129:38324 CA  
TITLE: Mass spectrometric and capillary electrophoretic  
investigation of the enzymic degradation of  
heparin-like glycosaminoglycans  
AUTHOR(S): Rhomberg, Andrew J.; Ernst, Steffen; Sasisekharan,  
Ram; Biemann, Klaus  
CORPORATE SOURCE: Department of Chemistry, Massachusetts Institute of  
Technology, Cambridge, MA, 02139, USA  
SOURCE: Proceedings of the National Academy of Sciences of the  
United States of America (1998), 95(8), 4176-4181  
CODEN: PNASA6; ISSN: 0027-8424  
PUBLISHER: National Academy of Sciences  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

REFERENCE 3

ACCESSION NUMBER: 124:194326 CA  
TITLE: A pharmaceutical composition comprising

oligosaccharides binding to lipoprotein lipase  
INVENTOR(S): Oestergaard, Per Bjoern; Larnkjaer, Anni  
PATENT ASSIGNEE(S): Den.  
SOURCE: PCT Int. Appl., 31 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9533468	A1	19951214	WO 1995-DK217	19950602
W: AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, TJ, TM, TT, UA, UG, US, UZ, VN				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9525609	A1	19960104	AU 1995-25609	19950602
PRIORITY APPLN. INFO.:			DK 1994-637	19940606
			WO 1995-DK217	19950602

L14 ANSWER 310 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 174082-77-0 REGISTRY

CN D-Glucose, O-4-deoxy-2-O-sulfo-.alpha.-L-threo-hex-4-enopyranuronosyl-(1.fwdarw.4)-O-2-deoxy-6-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-O-2-deoxy-6-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-O-2-deoxy-6-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2-deoxy-6-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-2-deoxy-2-(sulfoamino)-, 6-(hydrogen sulfate) (9CI) (CA INDEX NAME)

FS STEREOSEARCH

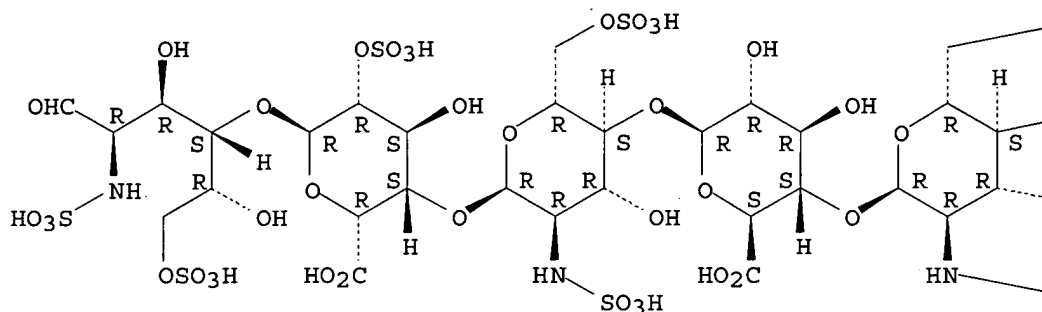
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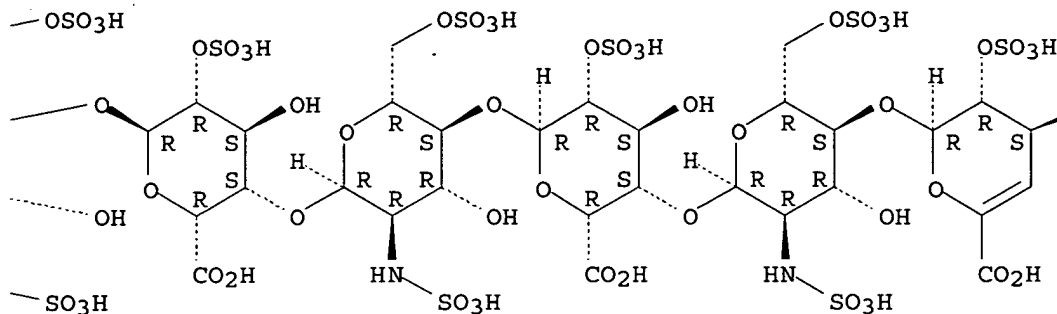
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

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PAGE 1-C

OH

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1907 TO DATE)  
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

## REFERENCE 1

ACCESSION NUMBER: 129:117648 CA  
 TITLE: Interaction of secretory leukocyte protease inhibitor with heparin inhibits proteases involved in asthma  
 AUTHOR(S): Fath, Melissa A.; Wu, Xiaojun; Hileman, Ronald E.; Linhardt, Robert J.; Kashem, Mohammed A.; Nelson, Richard M.; Wright, Clifford D.; Abraham, William M.  
 CORPORATE SOURCE: Division of Medicinal and Natural Products Chemistry, College of Pharmacy, University of Iowa, Iowa City, IA, 52242, USA  
 SOURCE: Journal of Biological Chemistry (1998), 273(22), 13563-13569  
 CODEN: JBCHA3; ISSN: 0021-9258  
 PUBLISHER: American Society for Biochemistry and Molecular Biology  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

## REFERENCE 2

ACCESSION NUMBER: 124:194326 CA  
 TITLE: A pharmaceutical composition comprising oligosaccharides binding to lipoprotein lipase  
 INVENTOR(S): Oestergaard, Per Bjoern; Larnkjaer, Anni



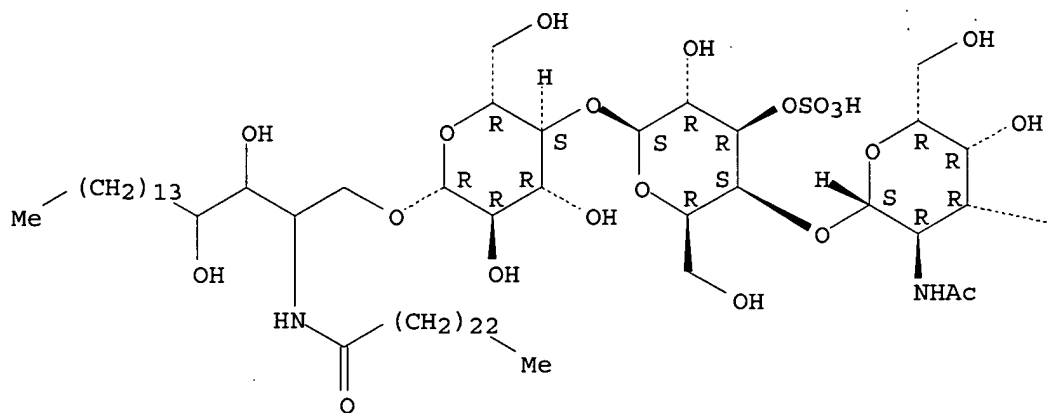
PATENT ASSIGNEE(S): Den.  
 SOURCE: PCT Int. Appl., 31 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9533468	A1	19951214	WO 1995-DK217	19950602
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RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
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PRIORITY APPLN. INFO.:			DK 1994-637	19940606
			WO 1995-DK217	19950602

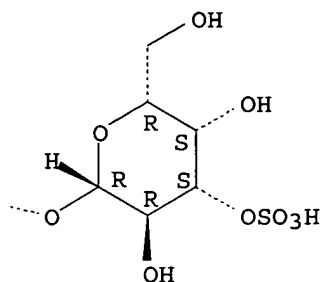
L14 ANSWER 311 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 171916-68-0 REGISTRY  
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 FS STEREOSEARCH  
 MF C68 H128 N2 O30 S2  
 SR CA  
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

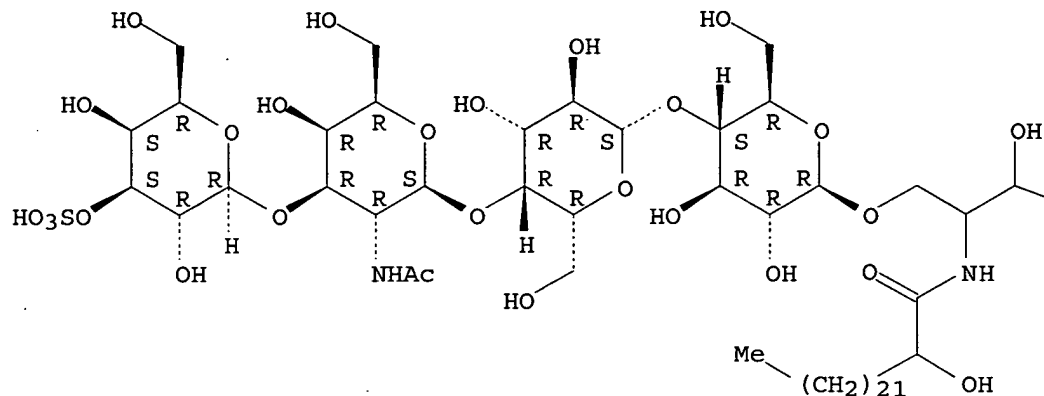
## REFERENCE 1

ACCESSION NUMBER: 124:56454 CA  
 TITLE: Structural analysis on mono- and bis-sulfated glycosphingolipids by negative liquid secondary ion mass spectrometry with high- and low-energy collision-induced dissociation  
 AUTHOR(S): Tadano-Aritomi, Keiko; Kubo, Harumi; Ireland, Philip; Okuda, Masaru; Kasama, Takeshi; Handa, Shizuo; Ishizuka, Ineo  
 CORPORATE SOURCE: Department of Biochemistry, Teikyo University School of Medicine, Tokyo, 173, Japan  
 SOURCE: Carbohydrate Research (1995), 273(1), 41-52  
 CODEN: CRBRAT; ISSN: 0008-6215  
 PUBLISHER: Elsevier  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

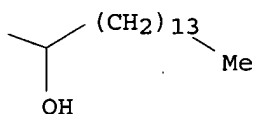
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 RN 171916-67-9 REGISTRY  
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 FS STEREOSEARCH  
 MF C68 H128 N2 O28 S  
 SR CA  
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.

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PAGE 1-B



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

## REFERENCE 1

ACCESSION NUMBER: 124:56454 CA  
 TITLE: Structural analysis on mono- and bis-sulfated glycosphingolipids by negative liquid secondary ion mass spectrometry with high- and low-energy collision-induced dissociation  
 AUTHOR(S): Tadano-Aritomi, Keiko; Kubo, Harumi; Ireland, Philip; Okuda, Masaru; Kasama, Takeshi; Handa, Shizuo; Ishizuka, Ineo  
 CORPORATE SOURCE: Department of Biochemistry, Teikyo University School of Medicine, Tokyo, 173, Japan  
 SOURCE: Carbohydrate Research (1995), 273(1), 41-52  
 CODEN: CRBRAT; ISSN: 0008-6215  
 PUBLISHER: Elsevier  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

L14 ANSWER 313 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 171916-66-8 REGISTRY  
 CN Tetracosanamide, N-[1-[[[O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-sulfo-

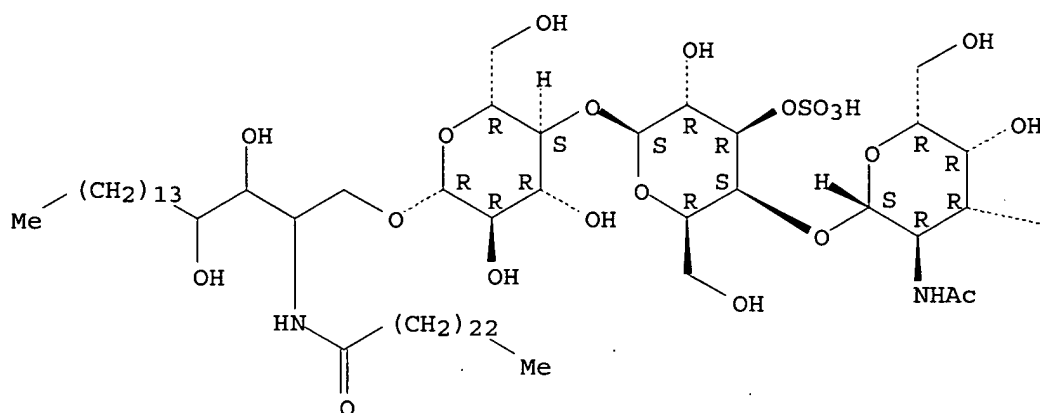
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FS      STEREOSEARCH
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SR      CA
LC      STN Files:   CA, CAPLUS

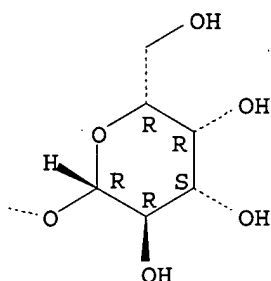
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Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 124:56454 CA  
TITLE: Structural analysis on mono- and bis-sulfated  
glycosphingolipids by negative liquid secondary ion  
mass spectrometry with high- and low-energy  
collision-induced dissociation  
AUTHOR(S): Tadano-Aritomi, Keiko; Kubo, Harumi; Ireland, Philip;  
Okuda, Masaru; Kasama, Takeshi; Handa, Shizuo;  
Ishizuka, Ineo  
CORPORATE SOURCE: Department of Biochemistry, Teikyo University School  
of Medicine, Tokyo, 173, Japan

SOURCE: Carbohydrate Research (1995), 273(1), 41-52  
CODEN: CRBRAT; ISSN: 0008-6215  
PUBLISHER: Elsevier  
DOCUMENT TYPE: Journal  
LANGUAGE: English

L14 ANSWER 314 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 170796-62-0 REGISTRY

CN .beta.-D-Glucopyranosiduronic acid, 4-methoxyphenyl O-3-O-acetyl-2-(acetylamino)-2-deoxy-6-O-(phenylmethyl)-4-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,3-bis-O-(4-methoxybenzoyl)-6-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.3)-O-2-(acetylamino)-2-deoxy-6-O-(phenylmethyl)-4-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-, 6-methyl ester, 2,3-bis(4-methoxybenzoate), disodium salt (9CI) (CA INDEX NAME)

FS STEREOSEARCH

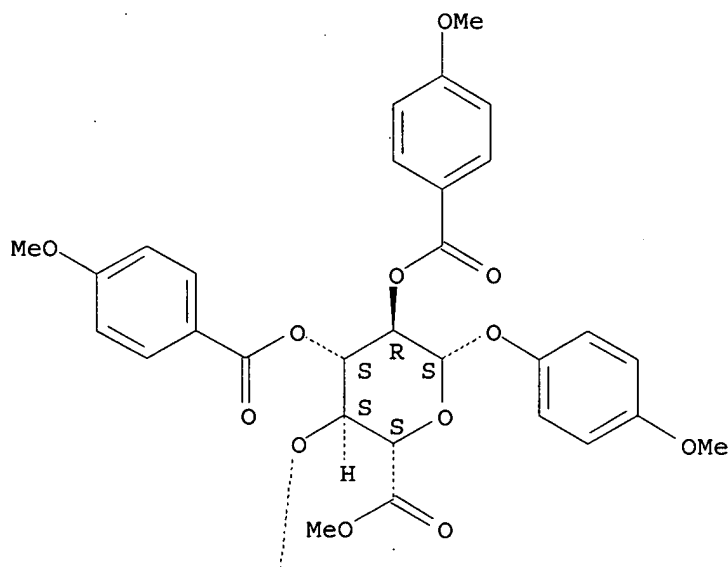
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SR CA

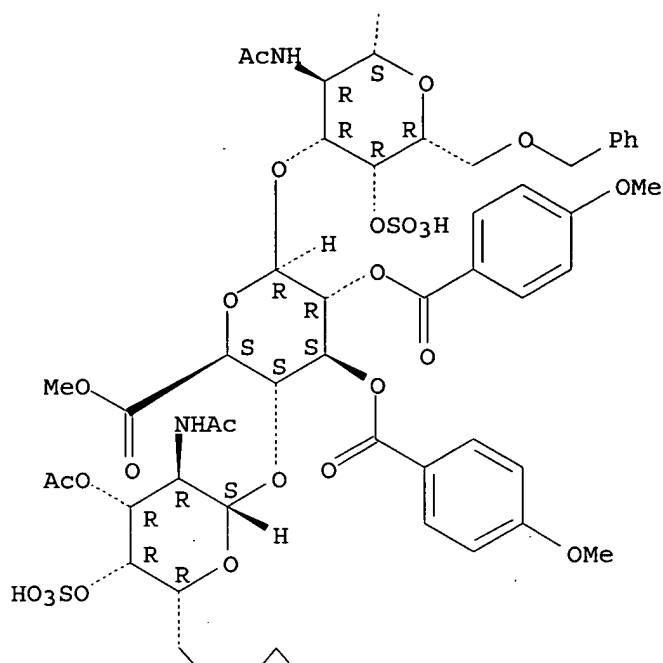
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

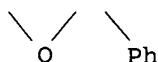
PAGE 1-A



PAGE 2-A



PAGE 3-A



●2 Na

1. REFERENCES IN FILE CA (1907 TO DATE)  
1. REFERENCES IN FILE CAPLUS (1907 TO DATE)

## REFERENCE 1

ACCESSION NUMBER: 123:340605 CA  
 TITLE: Synthetic studies on cell-surface glycans. 101. A regio- and stereoselective synthesis of 4-O-sulfated chondroitin di- and tetrasaccharides based on the strategy designed for the elongation of the repeating unit  
 AUTHOR(S): Tamura, Jun-ichi; Neumann, Klaus W.; Ogawa, Tomoya  
 CORPORATE SOURCE: Institute Physical Chemical Research, RIKEN, Saitama, 351-01, Japan  
 SOURCE: Bioorganic & Medicinal Chemistry Letters (1995), 5(13), 1351-4  
 CODEN: BMCLE8; ISSN: 0960-894X  
 PUBLISHER: Elsevier  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

RN 170742-84-4 REGISTRY

CN Glycine, L-arginylglycyl-L-arginylglycyl-L-arginylglycyl-L-arginylglycyl-L-  
arginylglycyl-L-arginylglycyl-L-arginylglycyl-L-arginylglycyl-L-  
arginylglycyl-L-arginyl-, compd. with O-2-deoxy-6-O-sulfo-2-(sulfoamino)-  
.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.beta.-D-glucopyranuronosyl-  
(1.fwdarw.4)-O-2-deoxy-3,6-di-O-sulfo-2-(sulfoamino)-.alpha.-D-  
glucopyranosyl-(1.fwdarw.4)-O-2-O-sulfo-.alpha.-L-idopyranuronosyl-  
(1.fwdarw.4)-2-deoxy-2-(sulfoamino)-D-glucose 6-(hydrogen sulfate) (9CI)  
(CA INDEX NAME)

OTHER CA INDEX NAMES:

[illegible]

FS PROTEIN SEQUENCE; STEREOSEARCH

MF C80 H152 N50 O21 . x C30 H51 N3 O49 S8

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LC STN Files: CA, CAPLUS

**\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\***

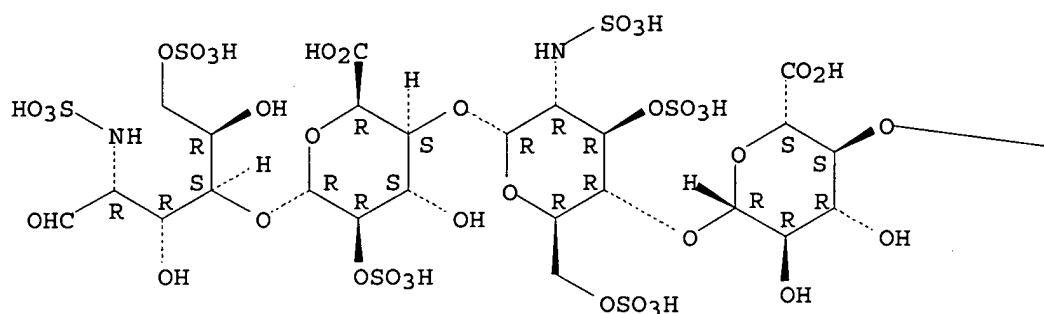
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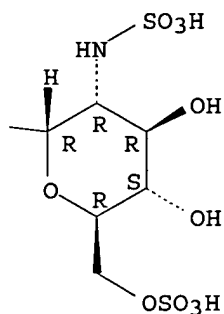
CMF C30 H51 N3 O49 S8

Absolute stereochemistry.

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CM 2

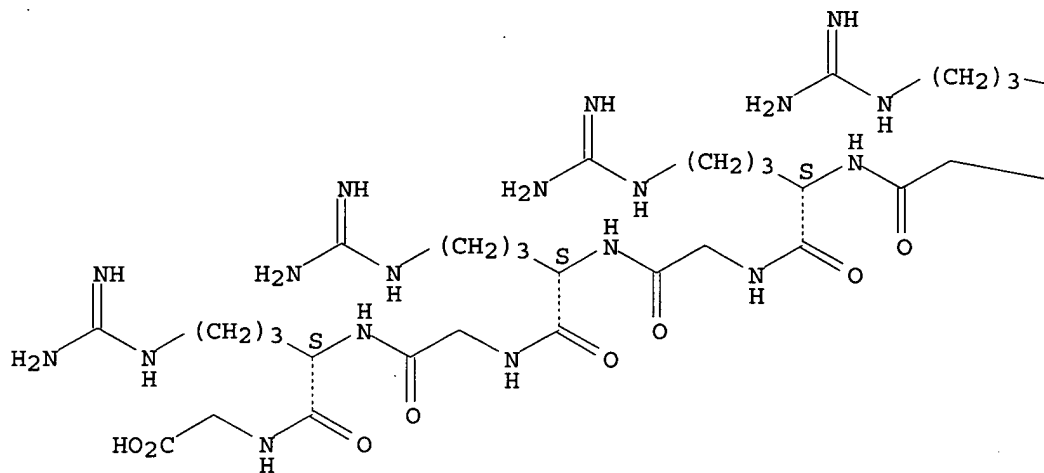
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\*\*RELATED SEQUENCES AVAILABLE WITH SEQLINK\*\*

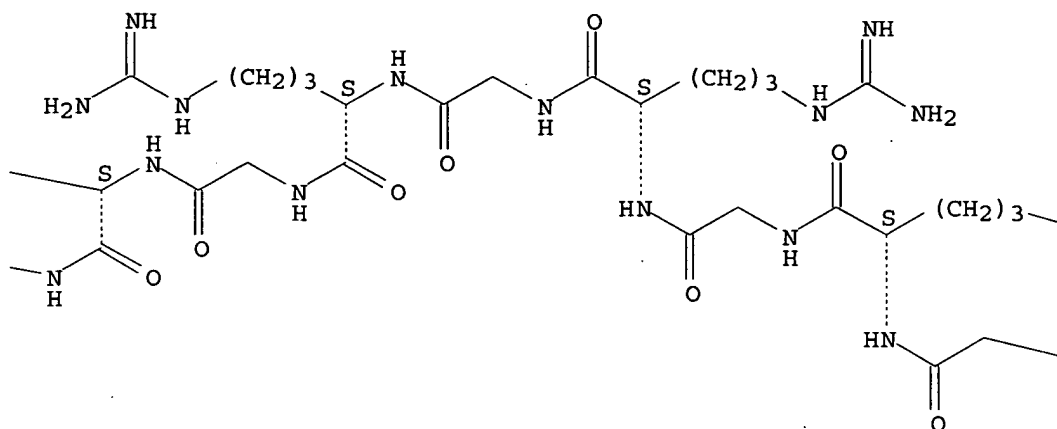
Absolute stereochemistry.

PAGE 1-A

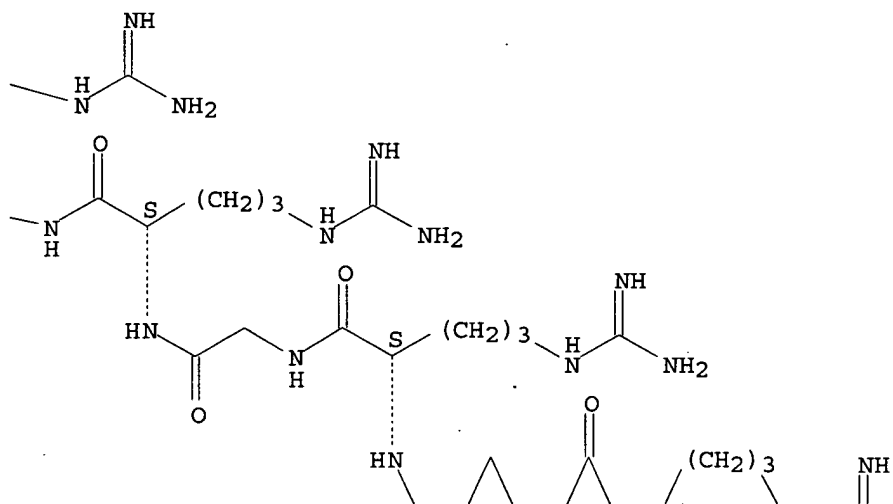




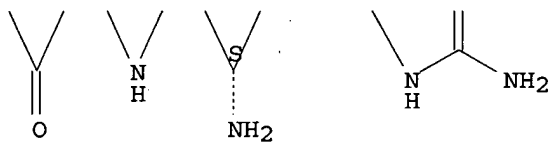
PAGE 1-B



PAGE 1-C



PAGE 2-C



1 REFERENCES IN FILE CA (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER:	123:340601 CA
TITLE:	Utility of non-covalent complexes in the matrix-assisted laser desorption ionization mass spectrometry of heparin-derived oligosaccharides
AUTHOR(S):	Juhasz, Peter; Biemann, Klaus
CORPORATE SOURCE:	Dep. Chemistry, Massachusetts Inst. Technology, Cambridge, MA, 02139, USA
SOURCE:	Carbohydrate Research (1995), 270(2), 131-47 CODEN: CRBRAT; ISSN: 0008-6215
PUBLISHER:	Elsevier
DOCUMENT TYPE:	Journal
LANGUAGE:	English

L14 ANSWER 316 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 170661-89-9 REGISTRY

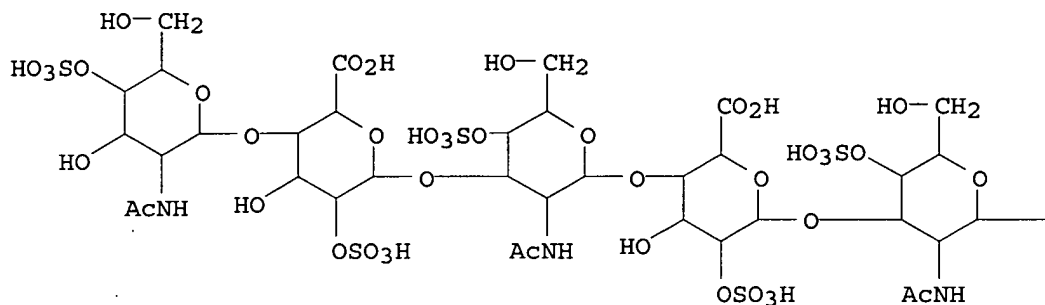
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MF C68 H105 N5 O81 S9

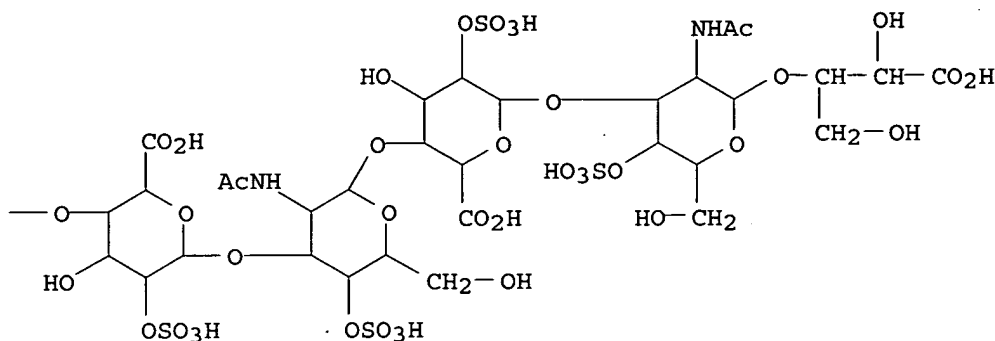
SR      CA

LC STN Files: CA, CAPLUS

PAGE 1-A



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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

## REFERENCE 1

ACCESSION NUMBER: 123:335792 CA  
 TITLE: Active sites of dermatan sulfate for heparin cofactor II. Isolation of a nonasaccharide fragment containing four disaccharide sequences [.alpha.-L-iduronic acid 2-O-sulfate (1,3)-.beta.-D-N-acetylgalactosamine 4-sulfate]  
 AUTHOR(S): Mascellani, G.; Liverani, L.; Prete, A.; Bergonzini, G. L.; Bianchini, P.; Silvestro, L.; Torri, G.; Bisio, A.; Guerrini, M.; Casu, B.  
 CORPORATE SOURCE: R. & D. Laboratories, Opocrin S.p.A., Corlo Formigine, Italy  
 SOURCE: Journal of Carbohydrate Chemistry (1995), 14(8), 1165-77  
 CODEN: JCACDM; ISSN: 0732-8303  
 PUBLISHER: Dekker  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

L14 ANSWER 317 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 170032-47-0 REGISTRY

CN D-Xylose, O-4-deoxy-2-O-sulfo-.alpha.-L-threo-hex-4-enopyranuronosyl-(1.fwdarw.4)-O-2-deoxy-6-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.beta.-D-glucopyranuronosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-(9CI) (CA INDEX NAME)

FS STEREOSEARCH

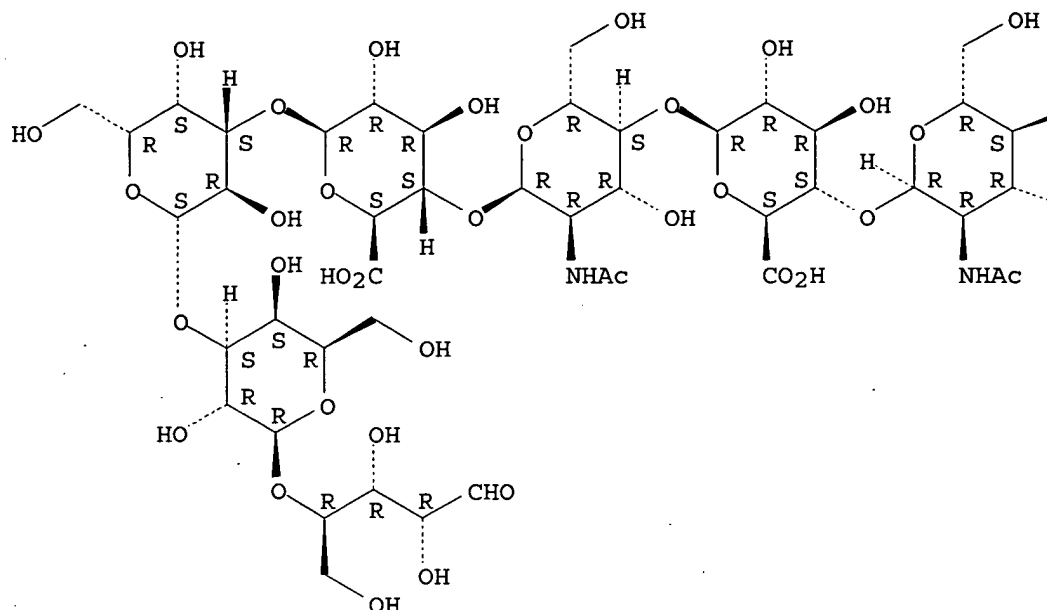
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SR CA

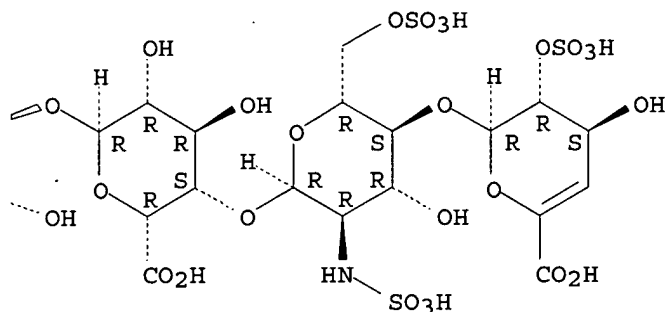
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

## REFERENCE 1

ACCESSION NUMBER: 123:308964 CA  
 TITLE: Structure determination of the octa- and  
 deca-saccharide sequences isolated from the  
 carbohydrate-protein linkage region of porcine  
 intestinal heparin  
 AUTHOR(S): Sugahara, Kazuyuki; Tsuda, Hiromi; Yoshida, Keiichi;  
 Yamada, Shuhei; de Beer, Tonny; Vliegthart, Johannes  
 F. G.

CORPORATE SOURCE: Dep. Biochem., Kobe Pharmaceutical Univ., Kobe, 658,  
Japan  
SOURCE: Journal of Biological Chemistry (1995), 270(39),  
22914-23  
CODEN: JBCHA3; ISSN: 0021-9258  
PUBLISHER: American Society for Biochemistry and Molecular Bio  
logy  
DOCUMENT TYPE: Journal  
LANGUAGE: English

L14 ANSWER 318 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 170032-46-9 REGISTRY

CN D-Xylose, O-4-deoxy-2-O-sulfo-.alpha.-L-threo-hex-4-enopyranuronosyl-  
(1.fwdarw.4)-O-2-deoxy-6-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-  
(1.fwdarw.4)-O-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-  
deoxy-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.beta.-D-glucopyranuronosyl-  
(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-.beta.-D-  
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FS STEREOSEARCH

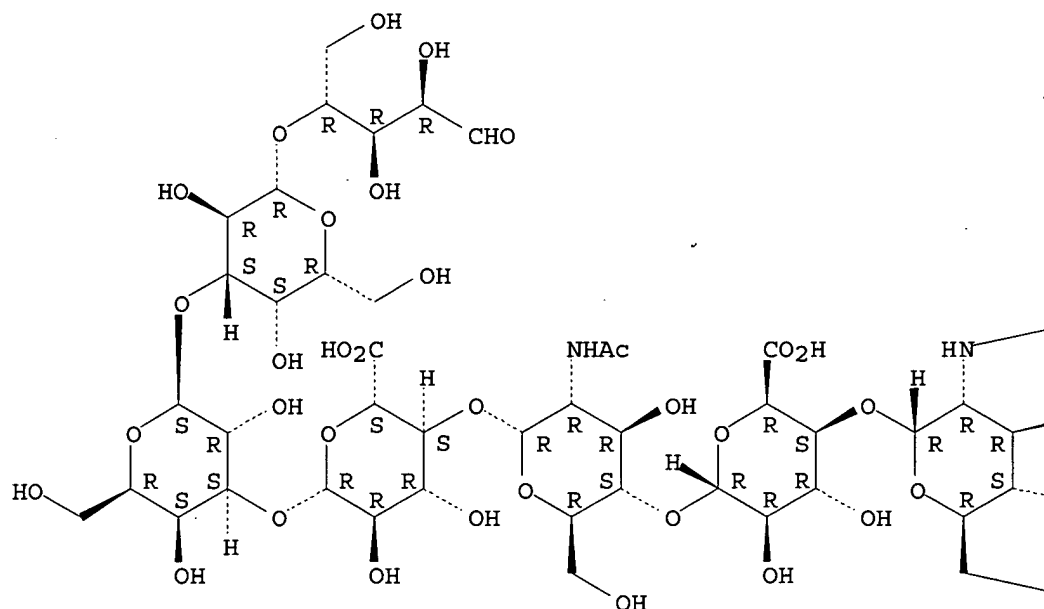
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SR CA

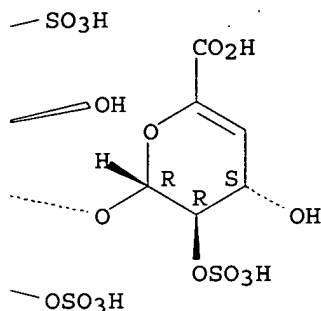
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

## REFERENCE 1

ACCESSION NUMBER: 123:308964 CA  
TITLE: Structure determination of the octa- and deca-saccharide sequences isolated from the carbohydrate-protein linkage region of porcine intestinal heparin  
AUTHOR(S): Sugahara, Kazuyuki; Tsuda, Hiromi; Yoshida, Keiichi; Yamada, Shuhei; de Beer, Tonny; Vliegenthart, Johannes F. G.  
CORPORATE SOURCE: Dep. Biochem., Kobe Pharmaceutical Univ., Kobe, 658, Japan  
SOURCE: Journal of Biological Chemistry (1995), 270(39), 22914-23  
CODEN: JBCHA3; ISSN: 0021-9258  
PUBLISHER: American Society for Biochemistry and Molecular Biology  
DOCUMENT TYPE: Journal  
LANGUAGE: English

L14 ANSWER 319 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

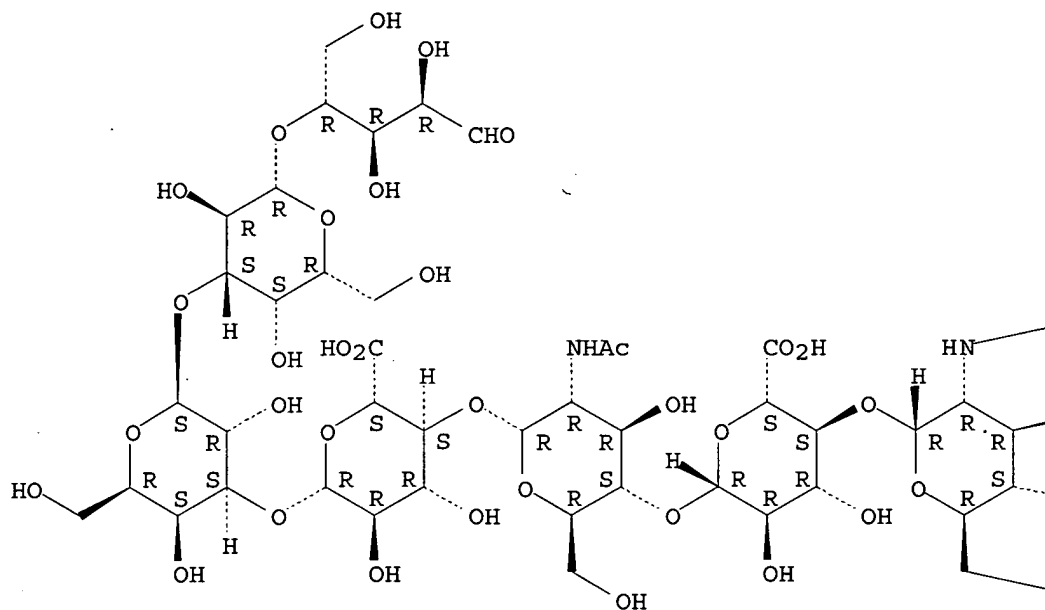
RN 170032-45-8 REGISTRY

CN D-Xylose, O-4-deoxy-2-O-sulfo-.alpha.-L-threo-hex-4-enopyranuronosyl-(1.fwdarw.4)-O-2-deoxy-6-O-sulfo-2-(sulfoamino)-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-.beta.-D-glucopyranuronosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)- (9CI) (CA INDEX NAME)

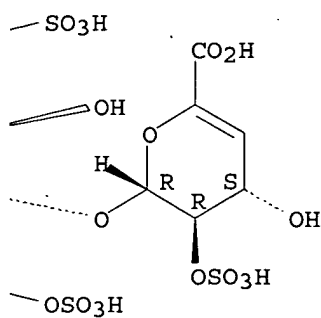
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MF C49 H76 N2 O50 S3  
SR CA  
LC STN Files: CA, CAPLUS

Absolute stereochemistry.

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1 REFERENCES IN FILE CA (1907 TO DATE)  
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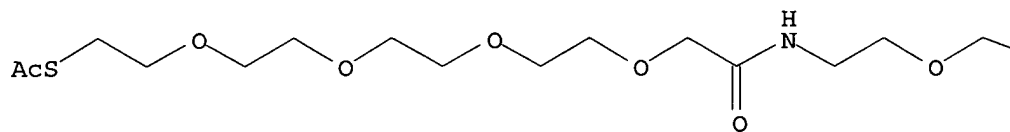
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TITLE: Structure determination of the octa- and deca-  
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AUTHOR(S): Sugahara, Kazuyuki; Tsuda, Hiromi; Yoshida, Keiichi;  
Yamada, Shuhei; de Beer, Tonny; Vliegthart, Johannes  
F. G.  
CORPORATE SOURCE: Dep. Biochem., Kobe Pharmaceutical Univ., Kobe, 658,  
Japan  
SOURCE: Journal of Biological Chemistry (1995), 270(39),  
22914-23  
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PUBLISHER: American Society for Biochemistry and Molecular Bio  
logy  
DOCUMENT TYPE: Journal  
LANGUAGE: English

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L114 ANSWER 320 OF 488  REGISTRY  COPYRIGHT 2004 ACS on STN
RN 169751-78-4  REGISTRY
CN .alpha.-D-Glucopyranoside, methyl O-4-O-(13,28-dioxo-3,6,9,15,18,21,24-
heptaoxa-27-thia-12-azanonacos-1-yl)-2,3,6-tri-O-sulfo-.alpha.-D-
glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-
(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-
2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-,
2,3,6-tris(hydrogen sulfate), undecasodium salt (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C55 H95 N O64 S10 . 11 Na
SR CA
LC STN Files: CA, CAPLUS, USPATFULL

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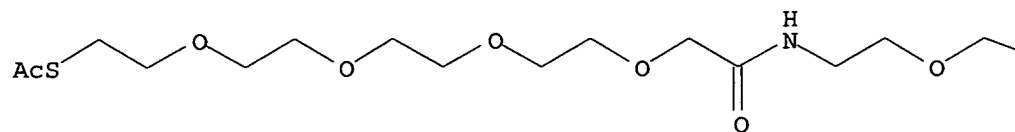
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● 11 Na

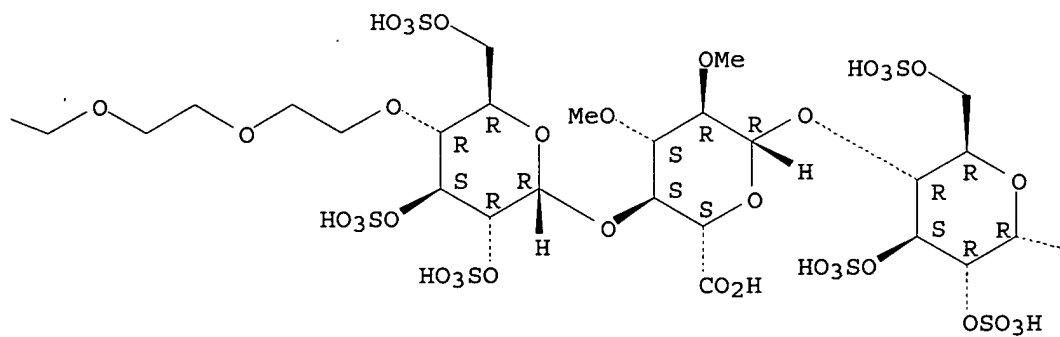


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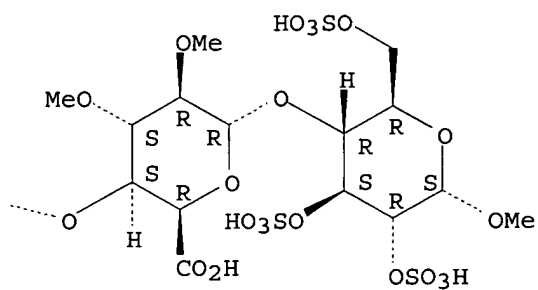


● 11 Na

PAGE 1-B



PAGE 1-C



1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 123:314399 CA  
 TITLE: Preparation of bisconjugates comprising two  
 oligosaccharide sulfate and a spacer as  
 antithrombotics  
 INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou,  
 Maurice  
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA  
 SOURCE: Eur. Pat. Appl., 49 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 649854	A1	19950426	EP 1994-202470	19940830
EP 649854	B1	20000315		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
AT 190619	E	20000415	AT 1994-202470	19940830
PT 649854	T	20000731	PT 1994-94202470	19940830
ES 2147216	T3	20000901	ES 1994-202470	19940830
CA 2131229	AA	19950302	CA 1994-2131229	19940831
FI 9404001	A	19950302	FI 1994-4001	19940831
NO 9403222	A	19950302	NO 1994-3222	19940831
AU 9471610	A1	19950316	AU 1994-71610	19940831
AU 679084	B2	19970619		
ZA 9406673	A	19950421	ZA 1994-6673	19940831
HU 69163	A2	19950828	HU 1994-2514	19940831
JP 07304787	A2	19951121	JP 1994-232003	19940901
US 5705489	A	19980106	US 1996-690449	19960805
HK 1002009	A1	20001215	HK 1998-101022	19980211
GR 3033410	T3	20000929	GR 2000-401098	20000512
PRIORITY APPLN. INFO.:			EP 1993-202562	19930901
			EP 1994-202470	19940830
			US 1994-299183	19940831

L14 ANSWER 321 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 169751-64-8 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-(22-mercapto-13,20-dioxo-3,6,9-trioxa-12,19-diazadocos-1-yl)-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-3-O-methyl-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate), dodecasodium salt (9CI) (CA INDEX NAME)

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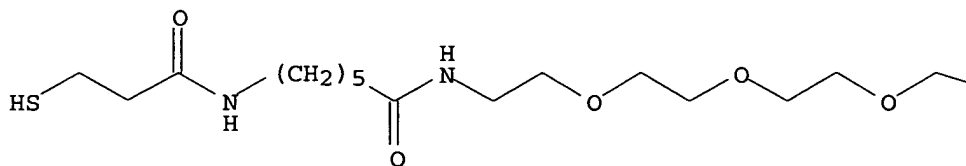
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SR CA

LC STN Files: CA, CAPLUS, USPATFULL

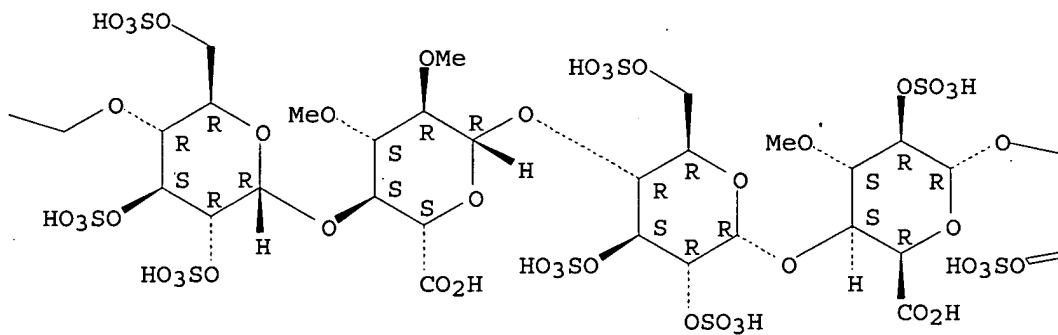
Absolute stereochemistry.

PAGE 1-A

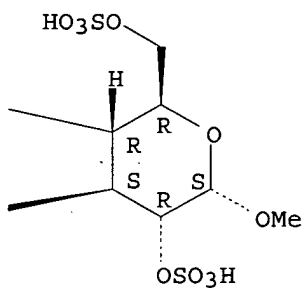


● 12 Na

PAGE 1-B



PAGE 1-C



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

ACCESSION NUMBER: 123:314399 CA  
 TITLE: Preparation of bisconjugates comprising two  
 oligosaccharide sulfate and a spacer as  
 antithrombotics  
 INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou,  
 Maurice  
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA  
 SOURCE: Eur. Pat. Appl., 49 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
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EP 649854	A1	19950426	EP 1994-202470	19940830
EP 649854	B1	20000315		
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PT 649854	T	20000731	PT 1994-94202470	19940830
ES 2147216	T3	20000901	ES 1994-202470	19940830
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HU 69163	A2	19950828	HU 1994-2514	19940831
JP 07304787	A2	19951121	JP 1994-232003	19940901
US 5705489	A	19980106	US 1996-690449	19960805
HK 1002009	A1	20001215	HK 1998-101022	19980211
GR 3033410	T3	20000929	GR 2000-401098	20000512
PRIORITY APPLN. INFO.:			EP 1993-202562	19930901
			EP 1994-202470	19940830
			US 1994-299183	19940831

L14 ANSWER 322 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 169751-63-7 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-[13,20-dioxo-22-(2-  
 pyridinyldithio)-3,6,9-trioxa-12,19-diazadocos-1-yl]-2,3,6-tri-O-sulfo-  
 .alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-  
 glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-  
 glucopyranosyl-(1.fwdarw.4)-O-3-O-methyl-2-O-sulfo-.alpha.-L-  
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 salt (9CI) (CA INDEX NAME)

FS STEREOSEARCH

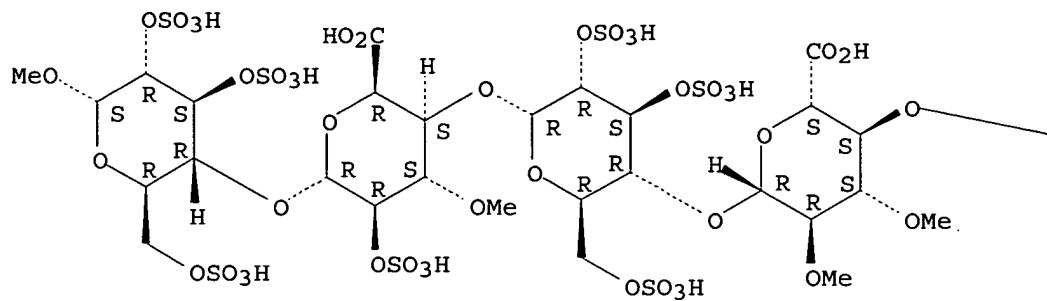
MF C56 H91 N3 O63 S12 . 12 Na

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

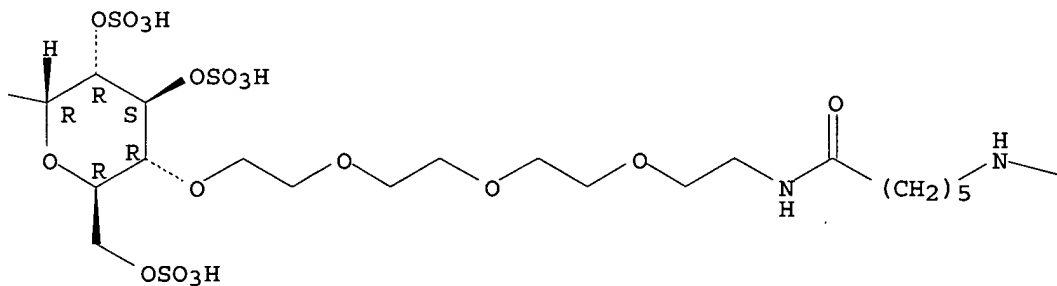
Absolute stereochemistry.

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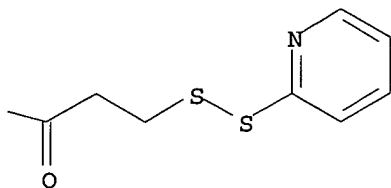


● 12 Na

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1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

## REFERENCE 1

ACCESSION NUMBER: 123:314399 CA  
TITLE: Preparation of bisconjugates comprising two

oligosaccharide sulfate and a spacer as  
antithrombotics

INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou, Maurice

PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA

SOURCE: Eur. Pat. Appl., 49 pp.  
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 649854	A1	19950426	EP 1994-202470	19940830
EP 649854	B1	20000315		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
AT 190619	E	20000415	AT 1994-202470	19940830
PT 649854	T	20000731	PT 1994-94202470	19940830
ES 2147216	T3	20000901	ES 1994-202470	19940830
CA 2131229	AA	19950302	CA 1994-2131229	19940831
FI 9404001	A	19950302	FI 1994-4001	19940831
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HU 69163	A2	19950828	HU 1994-2514	19940831
JP 07304787	A2	19951121	JP 1994-232003	19940901
US 5705489	A	19980106	US 1996-690449	19960805
HK 1002009	A1	20001215	HK 1998-101022	19980211
GR 3033410	T3	20000929	GR 2000-401098	20000512
PRIORITY APPLN. INFO.:			EP 1993-202562	19930901
			EP 1994-202470	19940830
			US 1994-299183	19940831

L14 ANSWER 323 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 169751-62-6 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-[2-[2-[2-(2-aminoethoxy)ethoxy]ethoxy]ethyl]-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-3-O-methyl-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate), dodecasodium salt (9CI) (CA INDEX NAME)

FS STEREOSEARCH

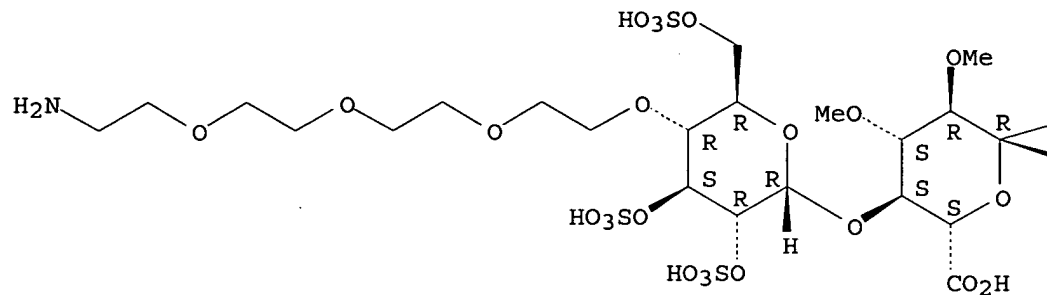
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SR CA

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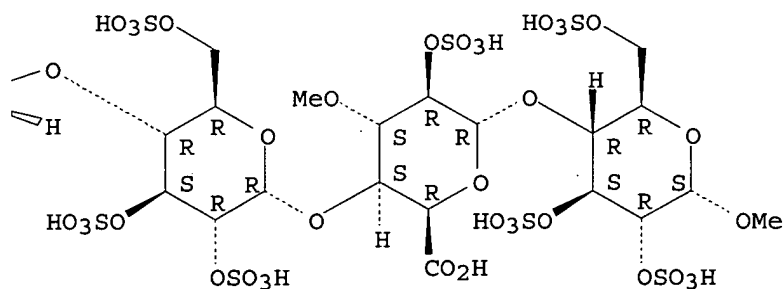
Absolute stereochemistry.

PAGE 1-A



● 12 Na

PAGE 1-B



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

## REFERENCE 1

ACCESSION NUMBER: 123:314399 CA  
 TITLE: Preparation of bisconjugates comprising two oligosaccharide sulfate and a spacer as antithrombotics  
 INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou, Maurice  
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA  
 SOURCE: Eur. Pat. Appl., 49 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 649854	A1	19950426	EP 1994-202470	19940830
EP 649854	B1	20000315		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
AT 190619	E	20000415	AT 1994-202470	19940830
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US 5705489	A	19980106	US 1996-690449	19960805
HK 1002009	A1	20001215	HK 1998-101022	19980211
GR 3033410	T3	20000929	GR 2000-401098	20000512
PRIORITY APPLN. INFO.:			EP 1993-202562	19930901
			EP 1994-202470	19940830
			US 1994-299183	19940831

L14 ANSWER 324 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 169751-61-5 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-(13-oxo-15-phenyl-3,6,9,14-tetraoxa-12-azapentadec-1-yl)-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-3-O-methyl-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate), dodecasodium salt (9CI) (CA INDEX NAME)

FS STEREOSEARCH

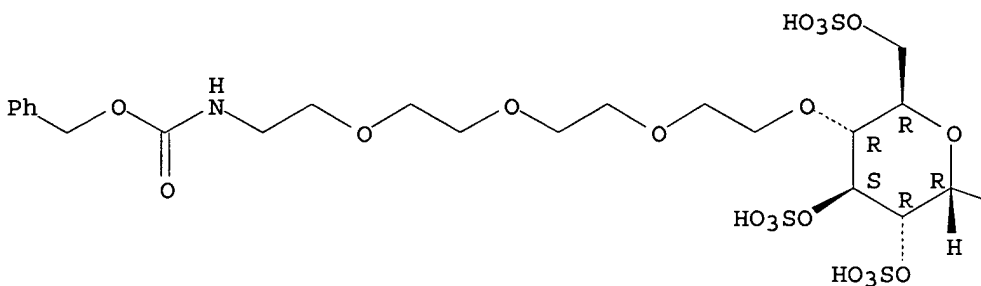
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SR CA

LC STN Files: CA, CAPLUS, USPATFULL

Absolute stereochemistry.

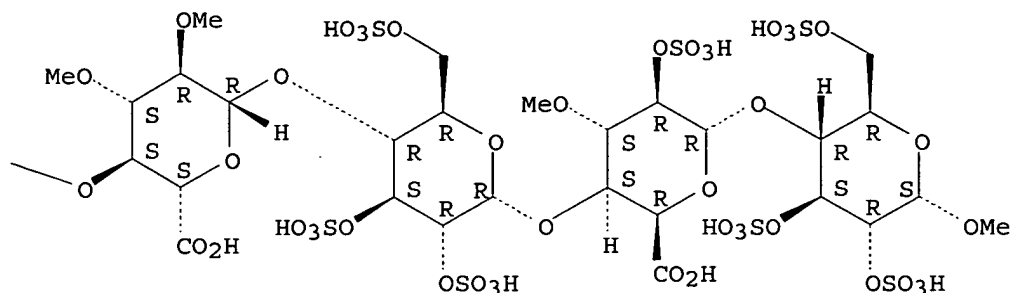
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● 12 Na



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1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

## REFERENCE 1

ACCESSION NUMBER: 123:314399 CA  
 TITLE: Preparation of bisconjugates comprising two oligosaccharide sulfate and a spacer as antithrombotics  
 INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou, Maurice  
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA  
 SOURCE: Eur. Pat. Appl., 49 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 649854	A1	19950426	EP 1994-202470	19940830
EP 649854	B1	20000315		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
AT 190619	E	20000415	AT 1994-202470	19940830
PT 649854	T	20000731	PT 1994-94202470	19940830
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GR 3033410	T3	20000929	GR 2000-401098	20000512
PRIORITY APPLN. INFO.:			EP 1993-202562	19930901
			EP 1994-202470	19940830
			US 1994-299183	19940831

L14 ANSWER 325 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 169751-25-1 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-(26-mercapto-13-oxo-3,6,9,15,18,21,24-hepta-oxa-12-azahexacos-1-yl)-2,3-di-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate), nonasodium salt (9CI) (CA INDEX NAME)

FS STEREOSEARCH

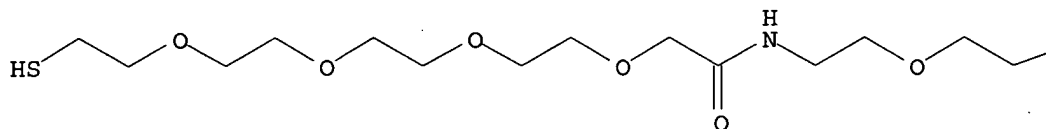
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LC STN Files: CA, CAPLUS, USPATFULL

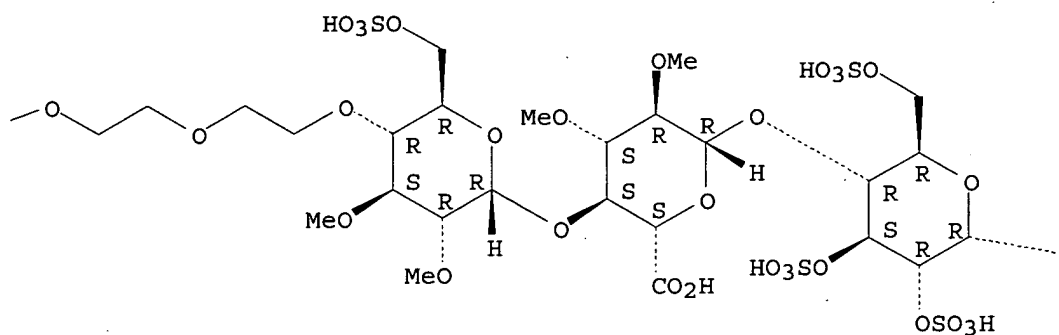
Absolute stereochemistry.

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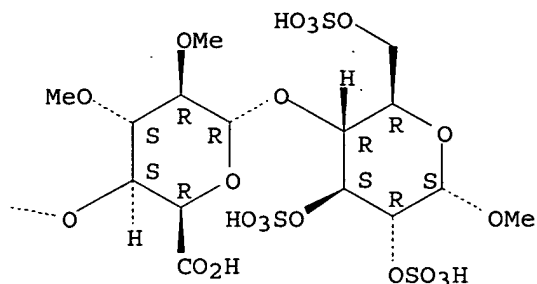


● 9 Na

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1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

## REFERENCE 1

ACCESSION NUMBER: 123:314399 CA  
 TITLE: Preparation of bisconjugates comprising two oligosaccharide sulfate and a spacer as antithrombotics  
 INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou, Maurice  
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA  
 SOURCE: Eur. Pat. Appl., 49 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 649854	A1	19950426	EP 1994-202470	19940830
EP 649854	B1	20000315		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
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PT 649854	T	20000731	PT 1994-94202470	19940830
ES 2147216	T3	20000901	ES 1994-202470	19940830
CA 2131229	AA	19950302	CA 1994-2131229	19940831
FI 9404001	A	19950302	FI 1994-4001	19940831
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ZA 9406673	A	19950421	ZA 1994-6673	19940831
HU 69163	A2	19950828	HU 1994-2514	19940831
JP 07304787	A2	19951121	JP 1994-232003	19940901
US 5705489	A	19980106	US 1996-690449	19960805
HK 1002009	A1	20001215	HK 1998-101022	19980211
GR 3033410	T3	20000929	GR 2000-401098	20000512
PRIORITY APPLN. INFO.:			EP 1993-202562	19930901
			EP 1994-202470	19940830
			US 1994-299183	19940831

L14 ANSWER 326 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 169751-22-8 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-(13,28-dioxo-3,6,9,15,18,21,24-hepta-27-thia-12-azanonacos-1-yl)-2,3-di-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate), nonasodium salt (9CI) (CA INDEX NAME)

FS STEREOSEARCH

MF C57 H99 N O58 S8 . 9 Na

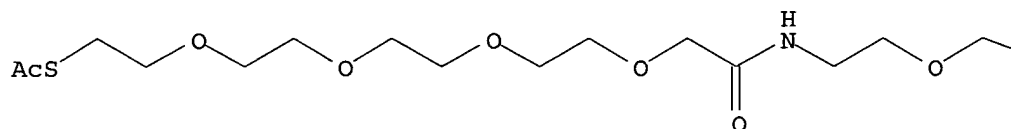
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CRN (175722-94-8)

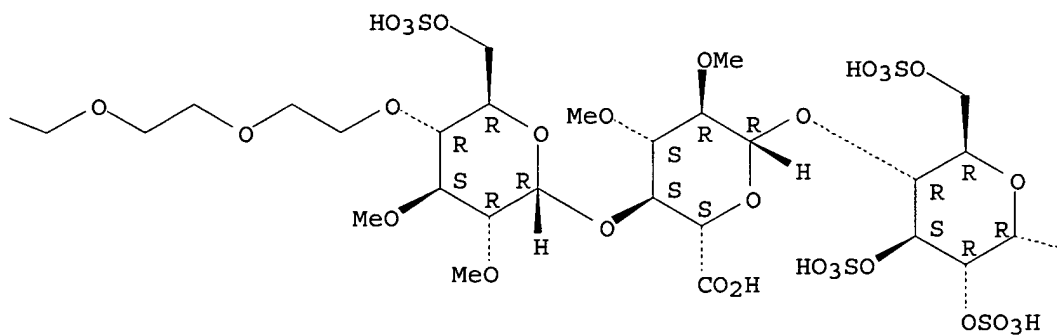
Absolute stereochemistry.

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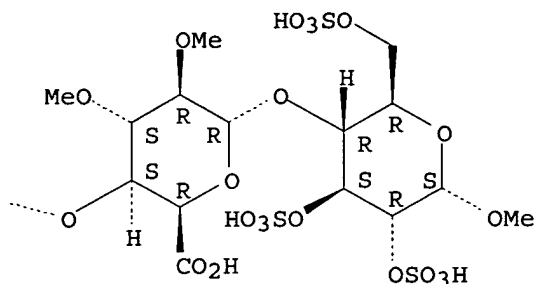


● 9 Na

PAGE 1-B



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1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

## REFERENCE 1

ACCESSION NUMBER: 123:314399 CA  
 TITLE: Preparation of bisconjugates comprising two oligosaccharide sulfate and a spacer as antithrombotics  
 INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou, Maurice  
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA  
 SOURCE: Eur. Pat. Appl., 49 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 649854	A1	19950426	EP 1994-202470	19940830
EP 649854	B1	20000315		
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HU 69163	A2	19950828	HU 1994-2514	19940831
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US 5705489	A	19980106	US 1996-690449	19960805
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GR 3033410	T3	20000929	GR 2000-401098	20000512
PRIORITY APPLN. INFO.:			EP 1993-202562	19930901
			EP 1994-202470	19940830
			US 1994-299183	19940831

L14 ANSWER 327 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 169751-21-7 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-(26-mercapto-12-methyl-13-oxo-3,6,9,15,18,21,24-hepta-oxa-12-azahexacos-1-yl)-2,3,6-tri-O-sulfo-.alpha.-D-mannopyranosyl-(1.fwdarw.4)-O-3-O-methyl-2-O-sulfo-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.6)-O-3-O-methyl-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate), tridecasodium salt (9CI) (CA INDEX NAME)

FS STEREOSEARCH

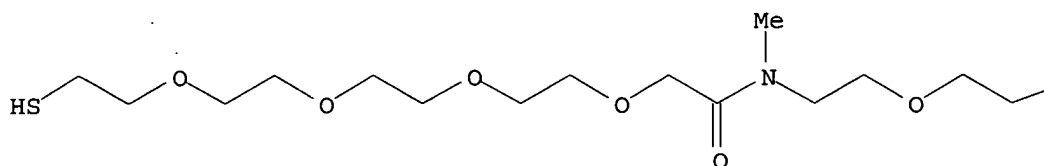
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SR CA

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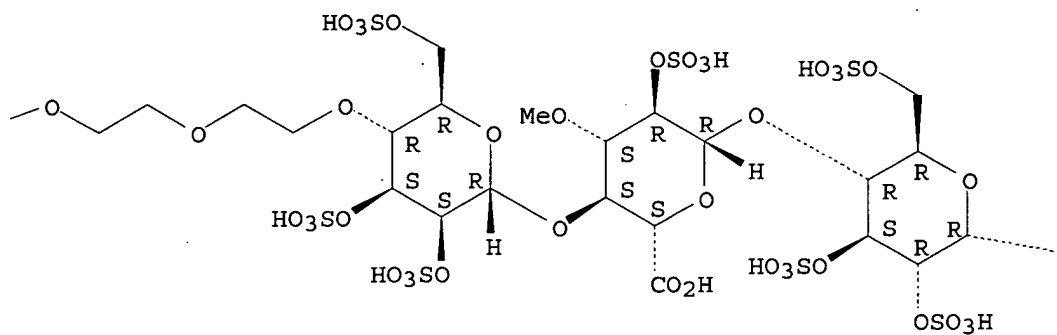
Absolute stereochemistry.

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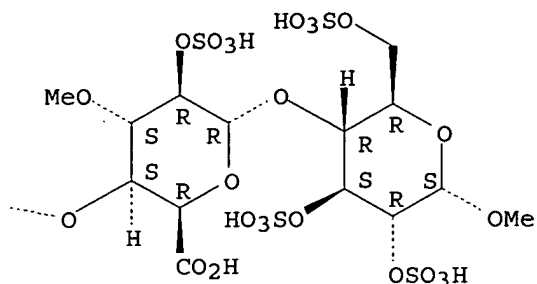


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PAGE 1-C



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

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ACCESSION NUMBER: 123:314399 CA  
 TITLE: Preparation of bisconjugates comprising two oligosaccharide sulfate and a spacer as antithrombotics  
 INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou, Maurice  
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA  
 SOURCE: Eur. Pat. Appl., 49 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 649854	A1	19950426	EP 1994-202470	19940830
EP 649854	B1	20000315		
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PT 649854	T	20000731	PT 1994-94202470	19940830
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FI 9404001	A	19950302	FI 1994-4001	19940831
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L14 ANSWER 328 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 169751-20-6 REGISTRY

CN .alpha.-D-Glucopyranoside, methyl O-4-O-(12-methyl-13,28-dioxo-3,6,9,15,18,21,24-hepta-27-thia-12-azanonacos-1-yl)-2,3,6-tri-O-sulfo-.alpha.-D-mannopyranosyl-(1.fwdarw.4)-O-3-O-methyl-2-O-sulfo-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-3-O-methyl-2-O-sulfo-.alpha.-L-idopyranuronosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate), tridecasodium salt (9CI) (CA INDEX NAME)

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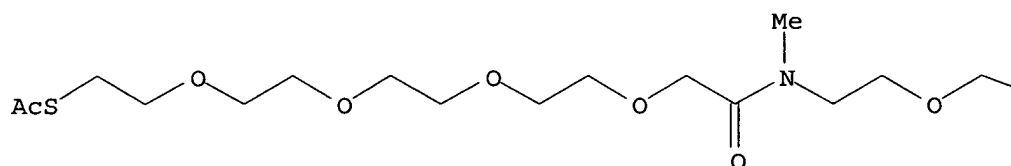
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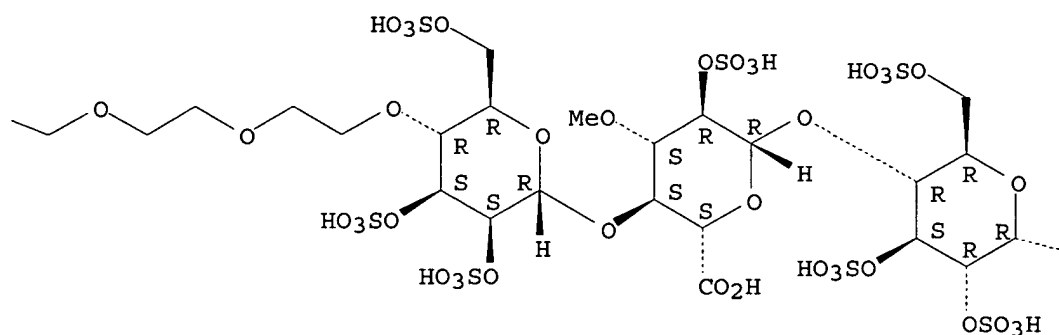
Absolute stereochemistry.

PAGE 1-A



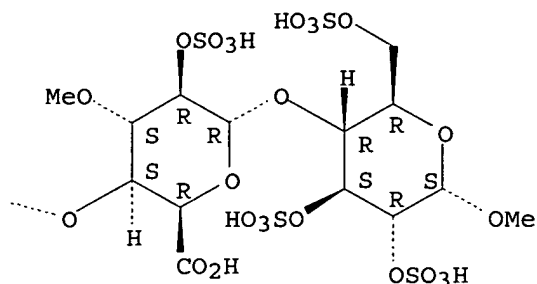
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1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

## REFERENCE 1

ACCESSION NUMBER: 123:314399 CA  
 TITLE: Preparation of bisconjugates comprising two oligosaccharide sulfate and a spacer as antithrombotics  
 INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou, Maurice  
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA  
 SOURCE: Eur. Pat. Appl., 49 pp.  
 CODEN: EPXXDW  
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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L14 ANSWER 329 OF 488 'REGISTRY COPYRIGHT 2004 ACS on STN  
 RN 169751-19-3 REGISTRY

CN .beta.-D-Glucopyranoside, 17-amino-3,6,9,12,15-pentaoxaheptadec-1-yl  
 O-2,3,4,6-tetra-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3,6-tri-  
 O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-  
 D-glucopyranosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-  
 (1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate), hexadecasodium salt (9CI)  
 (CA INDEX NAME)

FS STEREOSEARCH

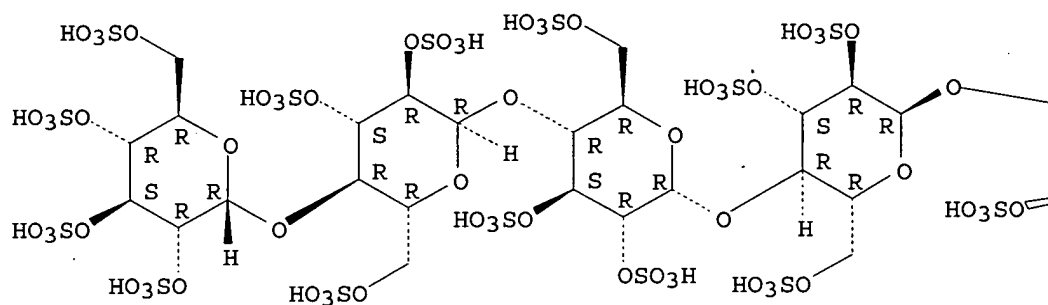
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SR CA

LC STN Files: CA, CAPLUS, USPATFULL

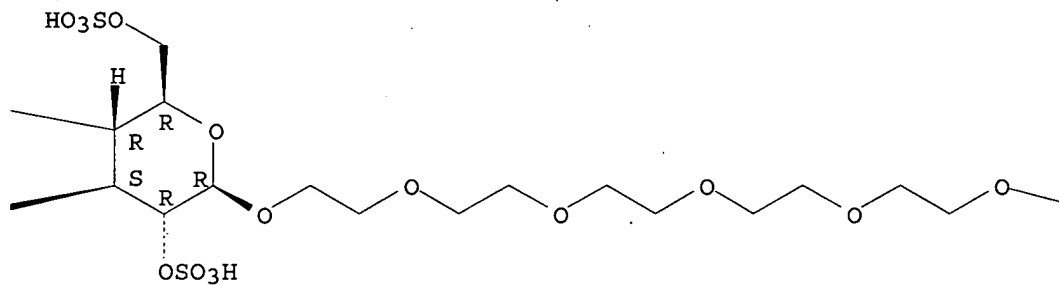
Absolute stereochemistry.

PAGE 1-A

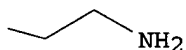


● 16 Na

PAGE 1-B



PAGE 1-C



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

## REFERENCE 1

ACCESSION NUMBER: 123:314399 CA  
 TITLE: Preparation of bisconjugates comprising two oligosaccharide sulfate and a spacer as antithrombotics  
 INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou, Maurice  
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA  
 SOURCE: Eur. Pat. Appl., 49 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 649854	A1	19950426	EP 1994-202470	19940830
EP 649854	B1	20000315		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
AT 190619	E	20000415	AT 1994-202470	19940830
PT 649854	T	20000731	PT 1994-94202470	19940830
ES 2147216	T3	20000901	ES 1994-202470	19940830
CA 2131229	AA	19950302	CA 1994-2131229	19940831
FI 9404001	A	19950302	FI 1994-4001	19940831
NO 9403222	A	19950302	NO 1994-3222	19940831
AU 9471610	A1	19950316	AU 1994-71610	19940831
AU 679084	B2	19970619		
ZA 9406673	A	19950421	ZA 1994-6673	19940831
HU 69163	A2	19950828	HU 1994-2514	19940831
JP 07304787	A2	19951121	JP 1994-232003	19940901
US 5705489	A	19980106	US 1996-690449	19960805
HK 1002009	A1	20001215	HK 1998-101022	19980211
GR 3033410	T3	20000929	GR 2000-401098	20000512
PRIORITY APPLN. INFO.:			EP 1993-202562	19930901
			EP 1994-202470	19940830
			US 1994-299183	19940831

L14 ANSWER 330 OF 488 REGISTRY COPYRIGHT 2004 ACS on STN

RN 169751-18-2 REGISTRY

CN .beta.-D-Glucopyranoside, 17-azido-3,6,9,12,15-pentaoxaheptadec-1-yl  
 O-2,3,4,6-tetra-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3,6-tri-  
 O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-

D-glucopyranosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate), hexadecasodium salt (9CI)  
(CA INDEX NAME)

FS STEREOSEARCH

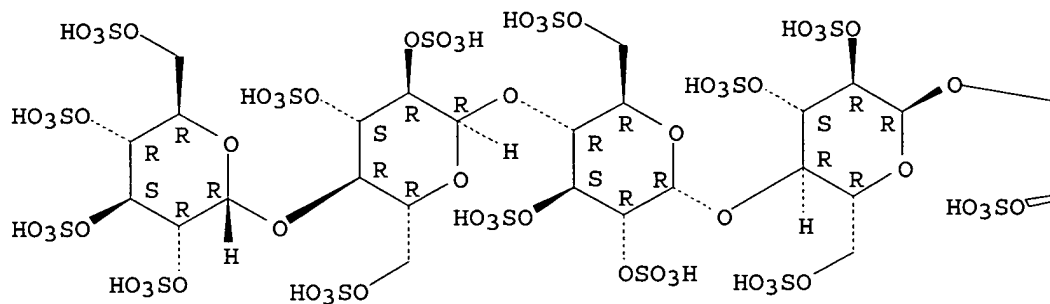
MF C42 H75 N3 O79 S16 . 16 Na

SR CA

LC STN Files: CA, CAPLUS, USPATFULL

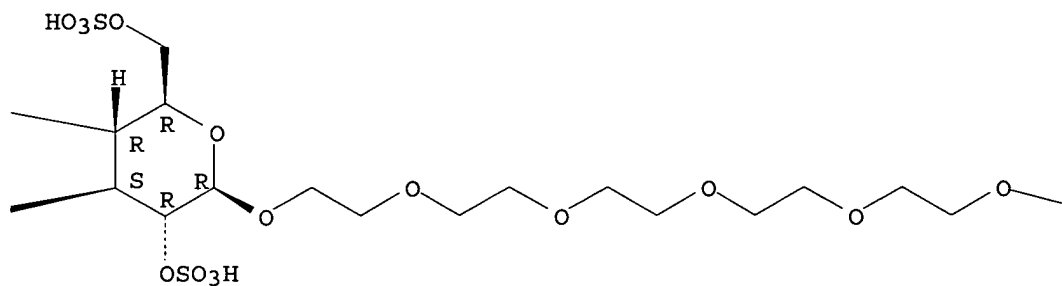
Absolute stereochemistry.

PAGE 1-A

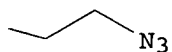


● 16 Na

PAGE 1-B



PAGE 1-C



1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

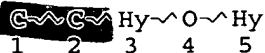
## REFERENCE 1

ACCESSION NUMBER: 123:314399 CA  
 TITLE: Preparation of bisconjugates comprising two  
 oligosaccharide sulfate and a spacer as  
 antithrombotics  
 INVENTOR(S): Van Boeckel, Constant; Grootenhuis, Peter; Petitou,  
 Maurice  
 PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Elf Sanofi SA  
 SOURCE: Eur. Pat. Appl., 49 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 649854	A1	19950426	EP 1994-202470	19940830
EP 649854	B1	20000315		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
AT 190619	E	20000415	AT 1994-202470	19940830
PT 649854	T	20000731	PT 1994-94202470	19940830
ES 2147216	T3	20000901	ES 1994-202470	19940830
CA 2131229	AA	19950302	CA 1994-2131229	19940831
FI 9404001	A	19950302	FI 1994-4001	19940831
NO 9403222	A	19950302	NO 1994-3222	19940831
AU 9471610	A1	19950316	AU 1994-71610	19940831
AU 679084	B2	19970619		
ZA 9406673	A	19950421	ZA 1994-6673	19940831
HU 69163	A2	19950828	HU 1994-2514	19940831
JP 07304787	A2	19951121	JP 1994-232003	19940901
US 5705489	A	19980106	US 1996-690449	19960805
HK 1002009	A1	20001215	HK 1998-101022	19980211
GR 3033410	T3	20000929	GR 2000-401098	20000512
PRIORITY APPLN. INFO.:			EP 1993-202562	19930901
			EP 1994-202470	19940830
			US 1994-299183	19940831

=&gt; d que

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S/ELS AND N/ELS  
L2 STR



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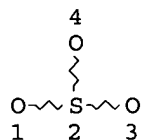
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L5 857 SEA FILE=REGISTRY SUB=L1 SSS FUL L2  
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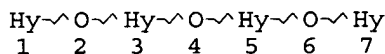
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L7 321 SEA FILE=REGISTRY SUB=L5 SSS FUL L6  
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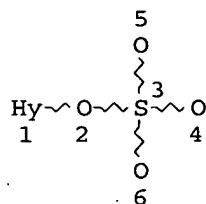
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L10 248 SEA FILE=REGISTRY SUB=L7 SSS FUL L9

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L15 12 SEA FILE=HCAPLUS ABB=ON PLU=ON L12

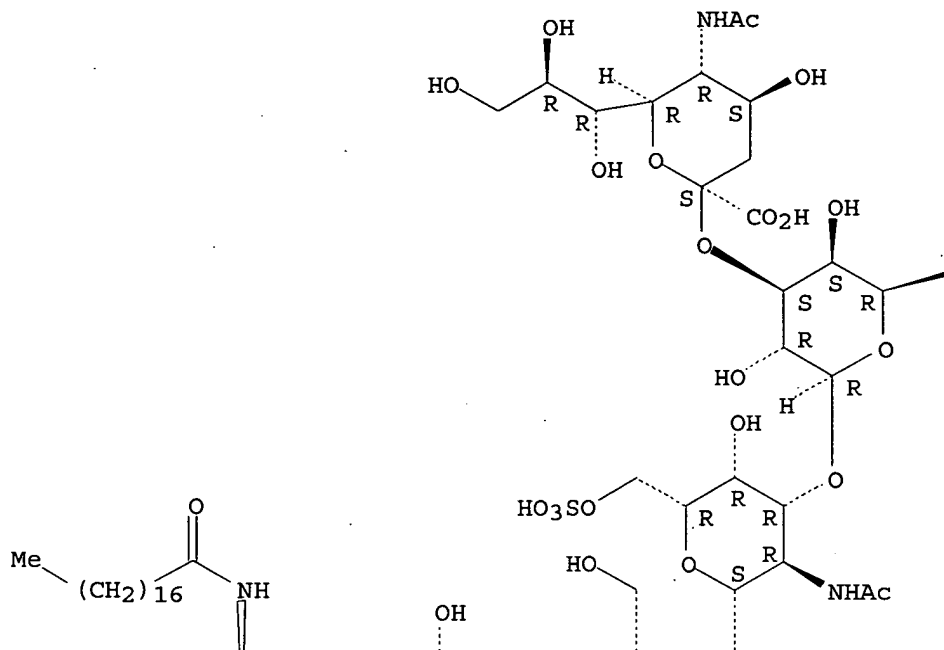
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L15 ANSWER 1 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2003:746326 HCAPLUS  
 DOCUMENT NUMBER: 139:365158  
 TITLE: Novel sulfated gangliosides, high-affinity ligands for neural siglecs, inhibit NADase activity of leukocyte cell surface antigen CD38  
 AUTHOR(S): Hara-Yokoyama, Miki; Ito, Hiromi; Ueno-Noto, Kaori; Takano, Keiko; Ishida, Hideharu; Kiso, Makoto  
 CORPORATE SOURCE: Graduate School, Department of Hard Tissue Engineering, Division of Bio-Matrix, Biochemistry, Tokyo Medical and Dental University, Bunkyo-ku, Tokyo, 113-8549, Japan  
 SOURCE: Bioorganic & Medicinal Chemistry Letters (2003), 13(20), 3441-3445  
 CODEN: BMCLE8; ISSN: 0960-894X  
 PUBLISHER: Elsevier Science B.V.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Three kinds of novel sulfated gangliosides structurally related to the Chol-1 (.alpha.-series) ganglioside GQ1b.alpha. were synthesized. These sulfated gangliosides were potent inhibitors of NADase activity of leukocyte cell surface antigen CD38. Among the synthetic gangliosides, GSC-338 (II3III6-disulfate of iso-GM1b) was surprisingly found to be the most potent structure in both the NADase inhibition and MAG-binding activity. The present study indicates that the sulfated gangliosides are useful to study the recognition of the internal tandem sialic acid residues .alpha.2-3-linked to Gal(II3) as well as the siglec-dependent recognition including a terminal sialic acid residue.  
 IT 622851-71-2P 622851-72-3P  
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (prepn. and NADase activity of leukocyte cell surface antigen CD38 inhibition of sulfated gangliosides related to the Chol-1 (.alpha.-series) ganglioside GQ1b.alpha.)  
 RN 622851-71-2 HCAPLUS  
 CN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranosyl]oxy]methyl]-2-hydroxy-3-heptadecenyl]-, trisodium salt (9CI) (CA INDEX NAME)

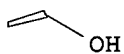
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 Double bond geometry as shown.



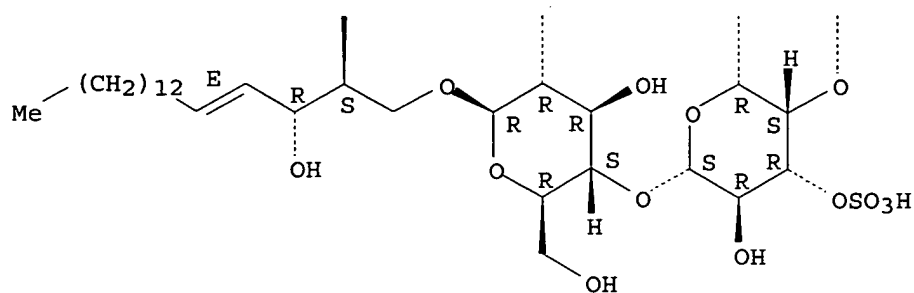
PAGE 1-A



PAGE 1-B



PAGE 2-A



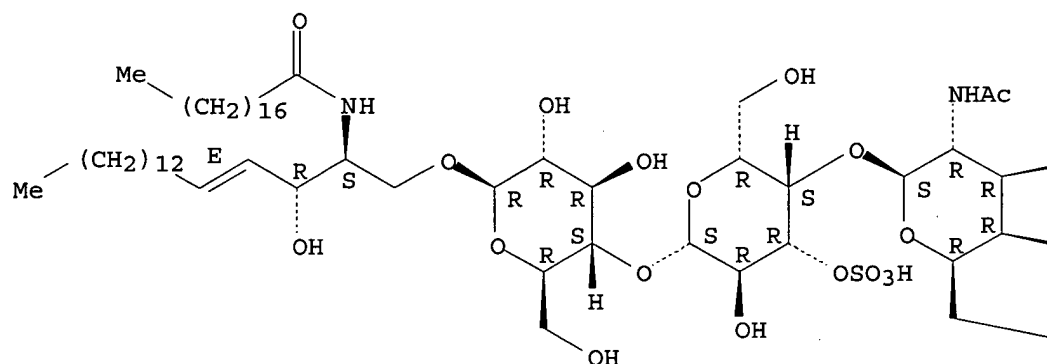
● 3 Na

RN 622851-72-3 HCAPLUS

CN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranosyl]oxy]methyl]-2-hydroxy-3-heptadecenyl]-, trisodium salt (9CI) (CA INDEX NAME)

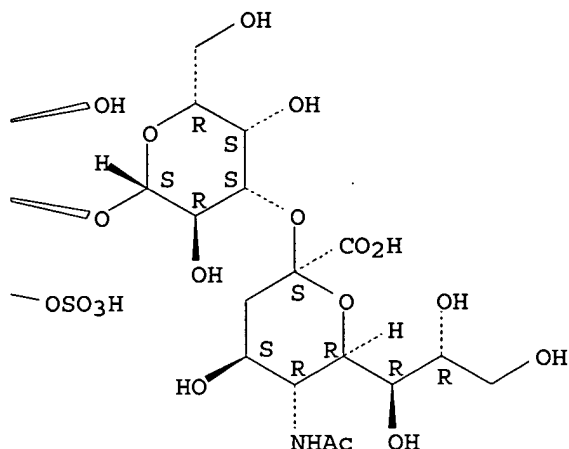
Absolute stereochemistry. Rotation (-).  
Double bond geometry as shown.

PAGE 1-A



● 3 Na

PAGE 1-B



IT 622851-82-5P 622851-85-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

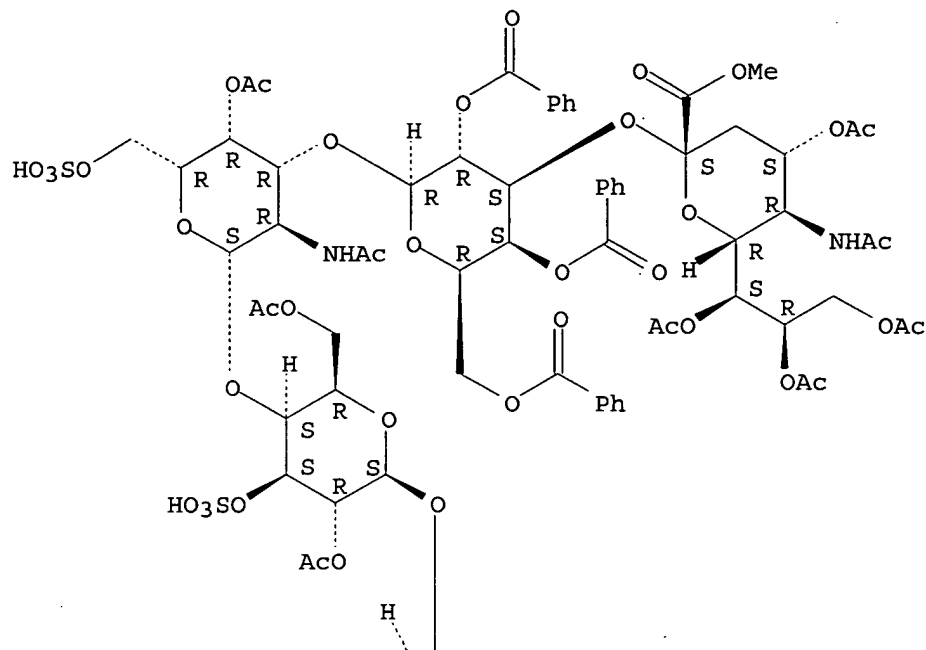
(prepn. and NADase activity of leukocyte cell surface antigen CD38 inhibition of sulfated gangliosides related to the Chol-1 (.alpha.-series) ganglioside GQ1b.alpha.)

RN 622851-82-5 HCAPLUS

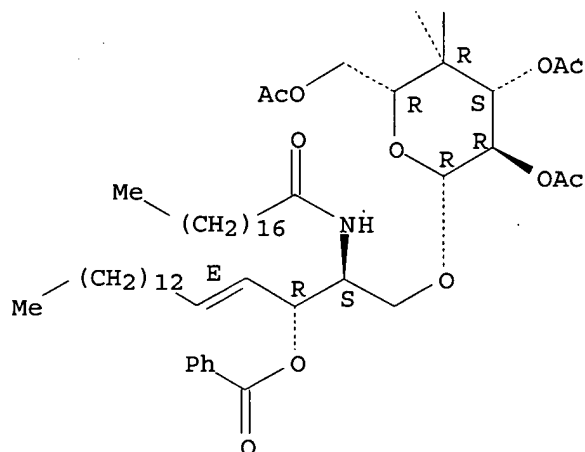
CN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-4-O-acetyl-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-acetyl-.beta.-D-glucopyranosyl]oxy)methyl]-2-(benzoyloxy)-3-heptadecenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.

PAGE 1-A



PAGE 2-A



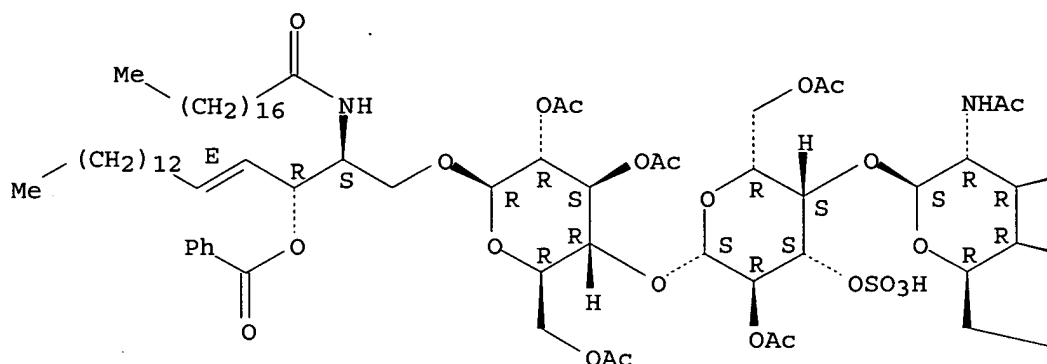
RN 622851-85-8 HCAPLUS

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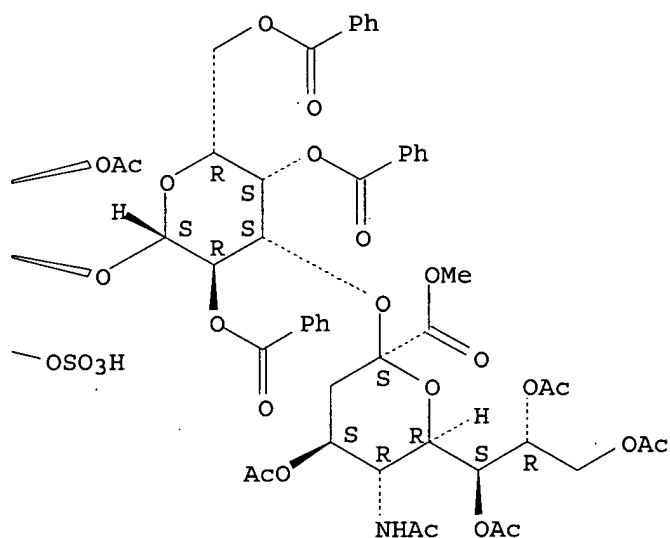
Absolute stereochemistry.

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B



REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 2 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:535178 HCAPLUS

DOCUMENT NUMBER: 139:292427

TITLE: Systematic synthesis and MAG-binding activity of novel sulfated GM1b analogues as mimics of Chol-1 (.alpha.-series) gangliosides: highly active ligands for neural siglecs

AUTHOR(S): Ito, Hiromi; Ishida, Hideharu; Collins, Brian E.; Fromholt, Susan E.; Schnaar, Ronald L.; Kiso, Makoto  
CORPORATE SOURCE: Department of Applied Bio-organic Chemistry, Gifu University, Gifu, 501-1193, Japan

SOURCE: Carbohydrate Research (2003), 338(16), 1621-1639  
CODEN: CRBRAT; ISSN: 0008-6215

PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Systematic synthesis and myelin-assocd. glycoprotein (MAG)-binding activity of novel sulfated GM1b analogs structurally related to Chol-1 (.alpha.-series) gangliosides, high-affinity ligands for neural siglecs, are described. The suitably protected gangliotriose derivs., 2-(trimethylsilyl)ethyl 2-acetamido-2-deoxy-6-O-levulinoyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-benzyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-benzyl-.beta.-D-glucopyranoside and 2-(trimethylsilyl)ethyl 2-acetamido-2-deoxy-6-O-levulinoyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,6-di-O-benzyl-3-O-levulinoyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-benzyl-.beta.-D-glucopyranoside were each glycosylated with .alpha.-NeuAc-(2.fwdarw.3)-galactose donor to give the corresponding pentasaccharides in 94% (.beta.1,3 glycoside only) and 90% (.beta.1,3:.beta.1,4=2:1), resp. After proper manipulation of the protecting groups, the pentasaccharides were converted into three novel sulfated GM1b gangliosides by the successive introduction of the ceramide and sulfo groups, followed by complete deprotection. Among the synthetic gangliosides, GSC-338 (II3III6-disulfate of iso-GM1b) was surprisingly found to be the most potent MAG binding structure tested to date.

IT 622851-71-2P 622851-72-3P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation);  
BIOL (Biological study); PREP (Preparation)

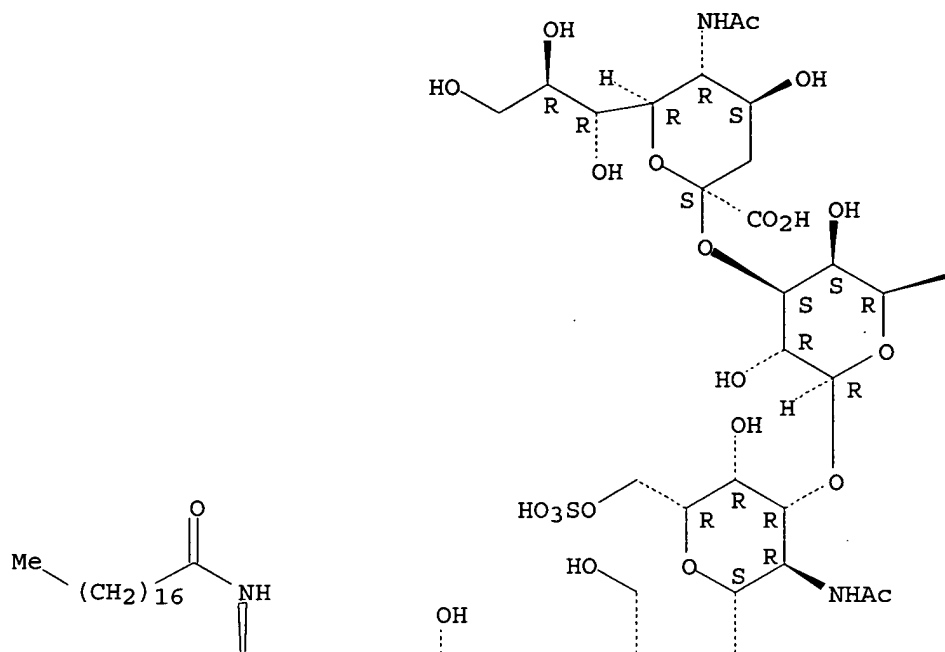
(systematic synthesis and MAG-binding activity of novel sulfated GM1b analogs as mimics of Chol-1 (.alpha.-series) gangliosides)

RN 622851-71-2 HCAPLUS

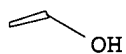
CN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranosyl]oxy]methyl]-2-hydroxy-3-heptadecenyl]-, trisodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.

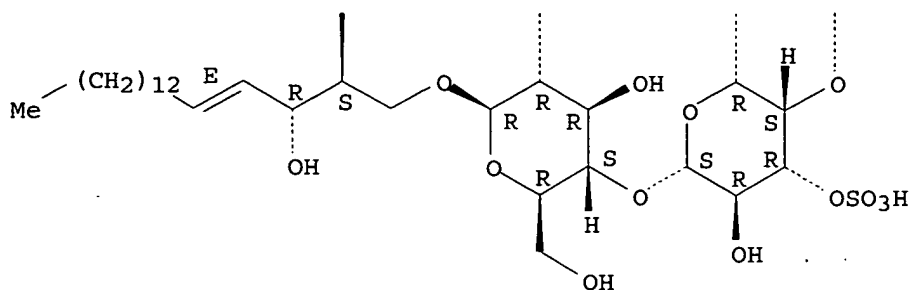
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PAGE 1-B



PAGE 2-A



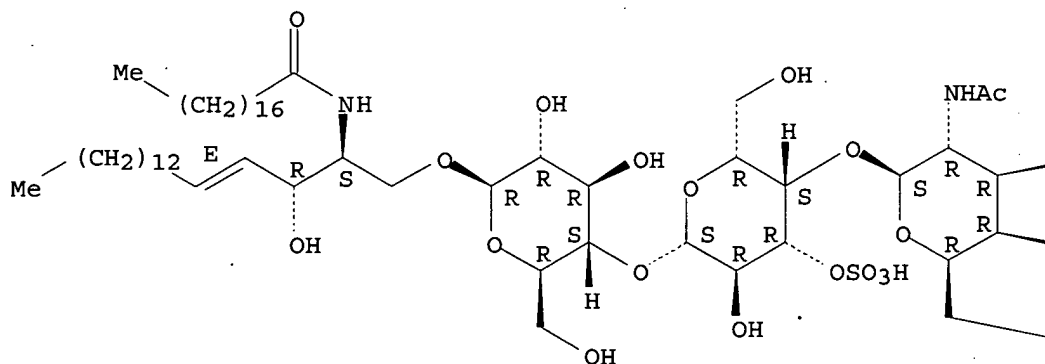
●3 Na

RN 622851-72-3 HCAPLUS

CN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranosyl]oxy]methyl]-2-hydroxy-3-heptadecenyl]-, trisodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).  
Double bond geometry as shown.

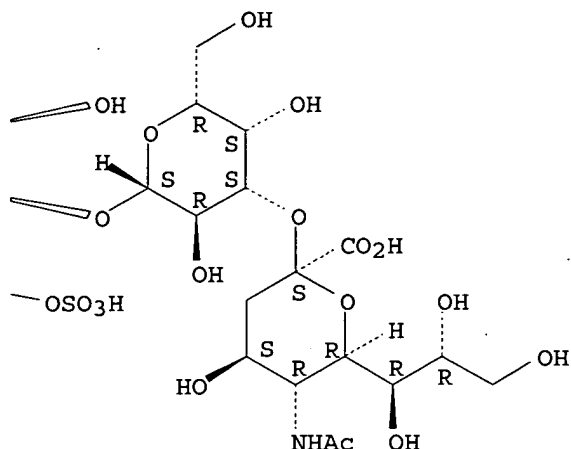
PAGE 1-A



●3 Na



PAGE 1-B



IT 608130-64-9P 608130-72-9P 608130-88-7P

608130-94-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(systematic synthesis and MAG-binding activity of novel sulfated GM1b analogs as mimics of Chol-1 (.alpha.-series) gangliosides)

RN 608130-64-9 HCAPLUS

CN .beta.-D-Glucopyranoside, 2-(trimethylsilyl)ethyl O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-4-O-acetyl-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-, 2,3,6-triacetate, compd. with pyridine (1:2) (9CI) (CA INDEX NAME)

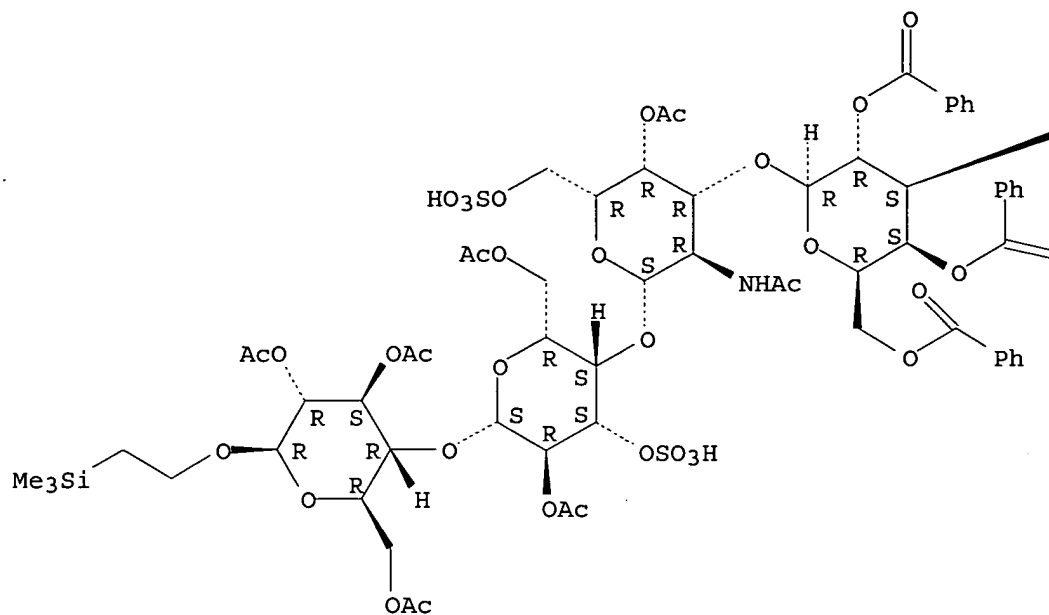
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CRN 608130-63-8

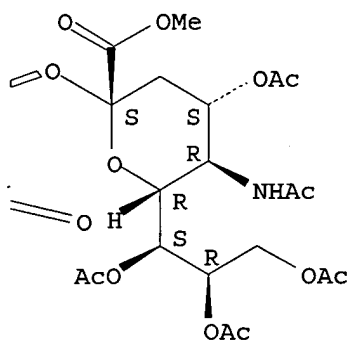
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Absolute stereochemistry. Rotation (+).

PAGE 1-A



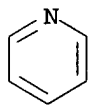
PAGE 1-B



CM 2

CRN 110-86-1

CMF C5 H5 N



RN 608130-72-9 HCAPLUS

CN .beta.-D-Glucopyranoside, 2-(trimethylsilyl)ethyl O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-acetyl-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-, 2,3,6-triacetate, compd. with pyridine (1:2) (9CI) (CA INDEX NAME)

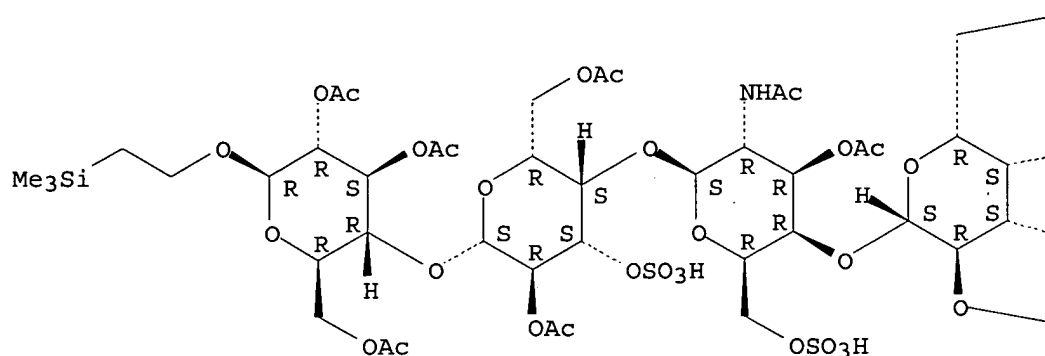
CM 1

CRN 608130-71-8

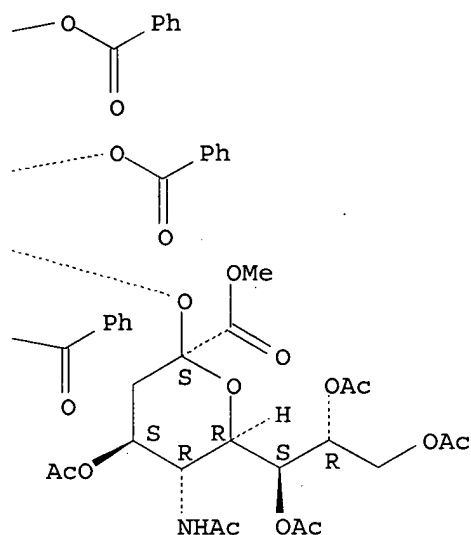
CMF C84 H108 N2 O48 S2 Si

Absolute stereochemistry. Rotation (+).

PAGE 1-A

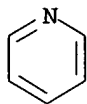


PAGE 1-B



CM 2

CRN 110-86-1  
CMF C5 H5 N



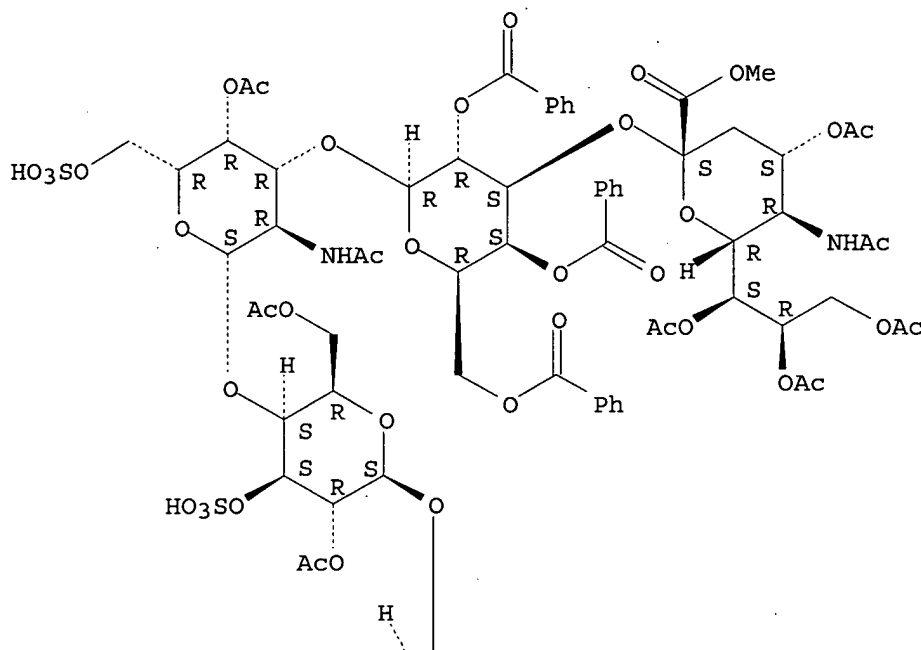
RN 608130-88-7 HCAPLUS  
CN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-4-O-acetyl-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-acetyl-.beta.-D-glucopyranosyl]oxy)methyl]-2-(benzoyloxy)-3-heptadecenyl]-, compd. with pyridine (1:2) (9CI) (CA INDEX NAME)

CM 1

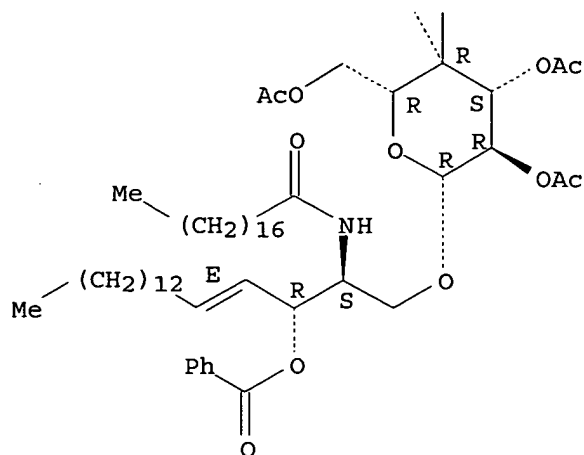
CRN 622851-82-5  
CMF C122 H169 N3 O51 S2

Absolute stereochemistry.  
Double bond geometry as shown.

PAGE 1-A



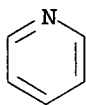
PAGE 2-A



CM 2

CRN 110-86-1

CMF C5 H5 N



RN 608130-94-5 HCAPLUS

CN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-acetyl-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-acetyl-.beta.-D-glucopyranosyl]oxy]methyl]-2-(benzoyloxy)-3-heptadecenyl]-, compd. with pyridine (1:2) (9CI) (CA INDEX NAME)

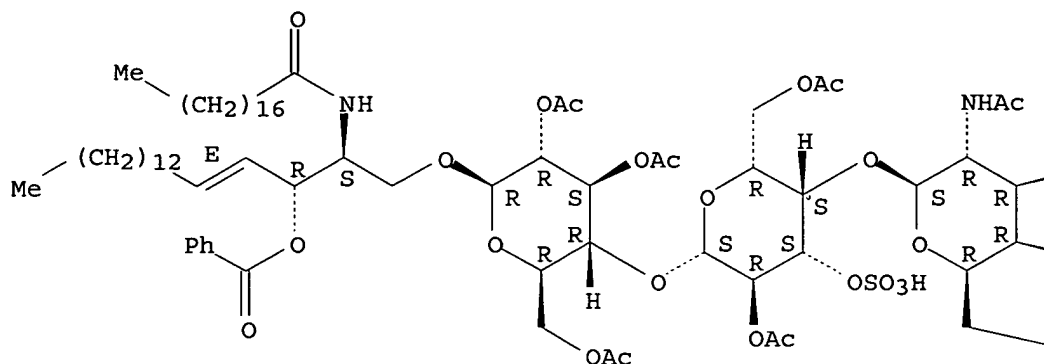
CM 1

CRN 622851-85-8

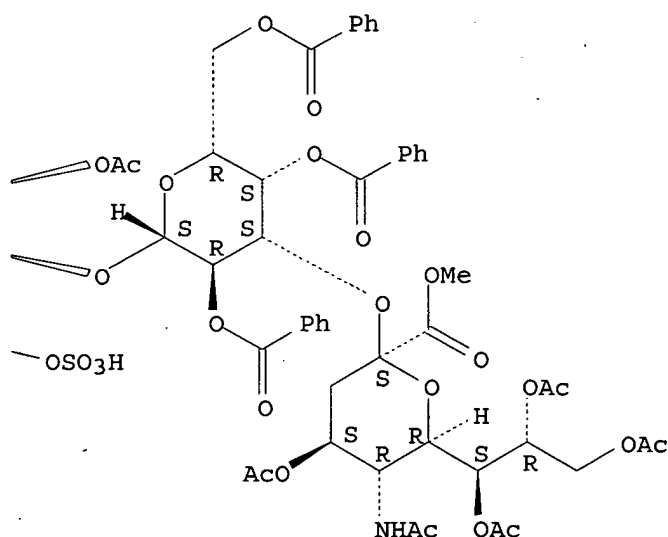
CMF C122 H169 N3 O51 S2

Absolute stereochemistry.  
Double bond geometry as shown.

PAGE 1-A



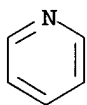
PAGE 1-B



CM 2

CRN 110-86-1

CMF C5 H5 N



IT 608130-66-1P 608130-75-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

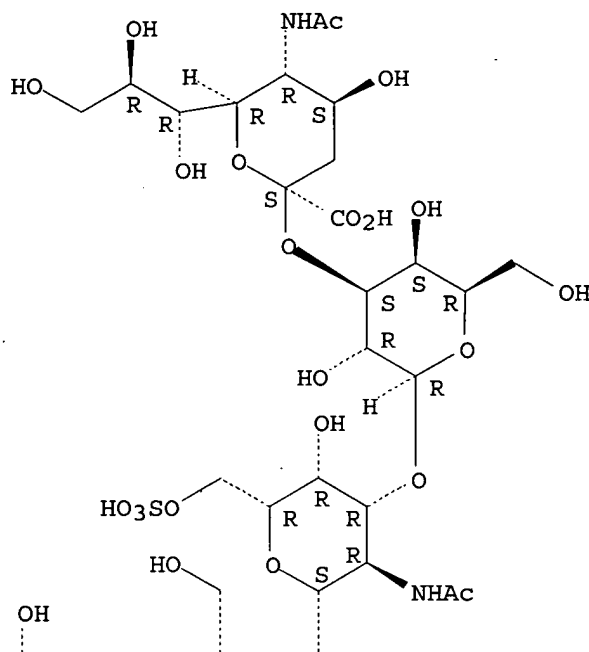
(systematic synthesis and MAG-binding activity of novel sulfated GM1b analogs as mimics of Chol-1 (.alpha.-series) gangliosides)

RN 608130-66-1 HCAPLUS

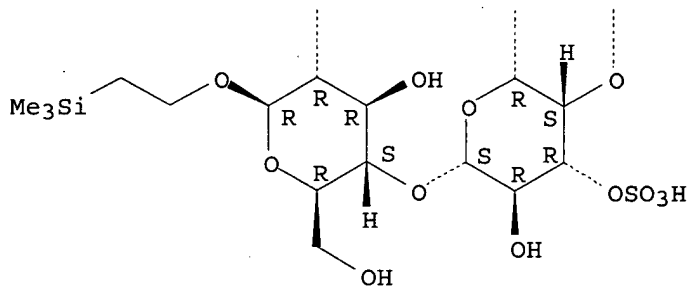
CN .beta.-D-Glucopyranoside, 2-(trimethylsilyl)ethyl O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-, trisodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

PAGE 1-A



PAGE 2-A



● 3 Na

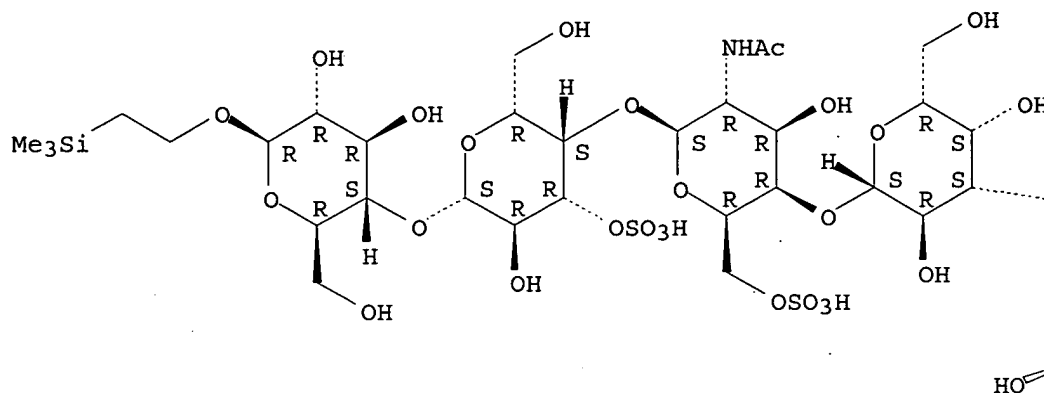
RN 608130-75-2 HCAPLUS

CN .beta.-D-Glucopyranoside, 2-(trimethylsilyl)ethyl O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-

O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-, trisodium salt (9CI) (CA INDEX NAME)

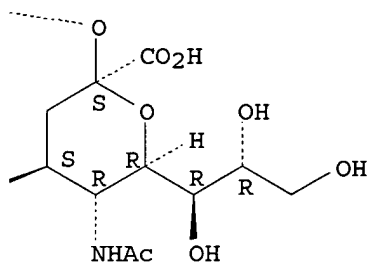
Absolute stereochemistry. Rotation (-).

PAGE 1-A



● 3 Na

PAGE 1-B



REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 3 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:935760 HCAPLUS

DOCUMENT NUMBER: 138:321467

TITLE: Probing the heparin - antithrombin III interaction using synthetic pentasaccharides bearing positively



charged groups

AUTHOR(S): Codee, Jeroen D. C.; van der Marel, Gijsbert A.; van Boeckel, Constant A. A.; van Boom, Jacques H.

CORPORATE SOURCE: Leiden Institute of Chemistry, Gorlaeus Laboratories, Leiden University, Leiden, 2300 RA, Neth.

SOURCE: European Journal of Organic Chemistry (2002), (23), 3954-3965

CODEN: EJOCFK; ISSN: 1434-193X

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:321467

AB Four heparin pentasaccharides bearing either one (I) or two (II) pos. charged amino groups at the reducing end have been synthesized and evaluated for their antithrombin III mediated anti-Xa activity. The pos. charged groups were introduced to interact specifically with the neg. charged amino acid residues Glu113 and Asp117 of antithrombin III, which are located in the heparin binding site in close proximity to the reducing end of the saccharide. It turned out that the target compds. I and II exhibited relatively low anti-Xa activities, indicating unfavorable interactions between the new pentasaccharides and antithrombin III rather than the anticipated enhancement of assocn.

IT 511511-52-7P 511511-54-9P 511511-56-1P 511511-58-3P

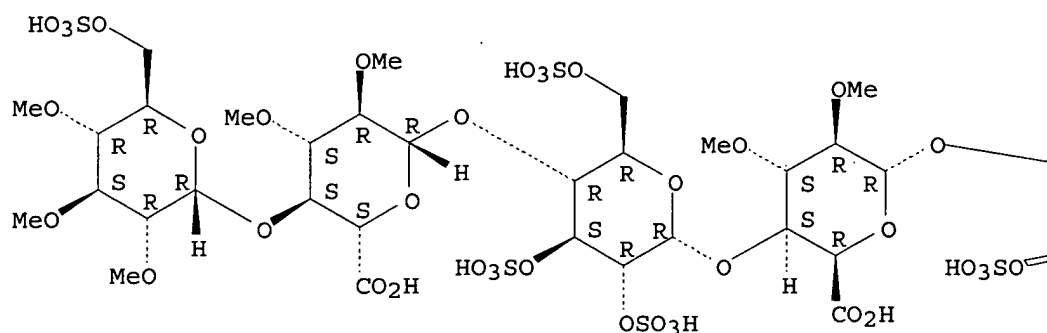
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(prepn. and anti-factor Xa activity of heparin oligosaccharide analogs)

RN 511511-52-7 HCAPLUS

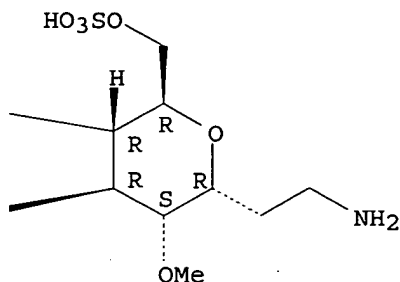
CN D-glycero-L-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.3)-8-amino-2,6-anhydro-7,8-dideoxy-5-O-methyl-, 1,4-bis(hydrogen sulfate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

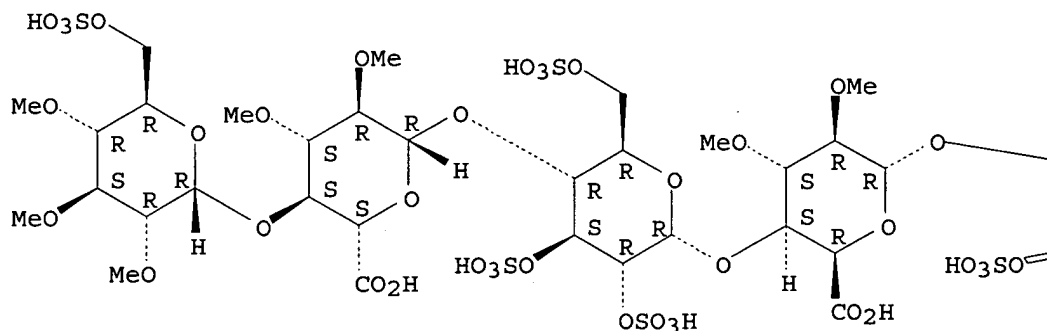


RN 511511-54-9 HCAPLUS

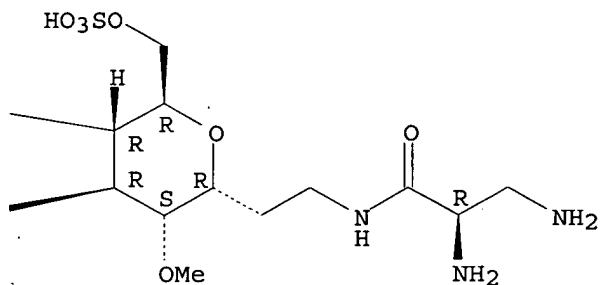
CN D-glycero-L-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.3)-2,6-anhydro-7,8-dideoxy-8-[[ (2R)-2,3-diamino-1-oxopropyl]amino]-5-O-methyl-, 1,4-bis(hydrogen sulfate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

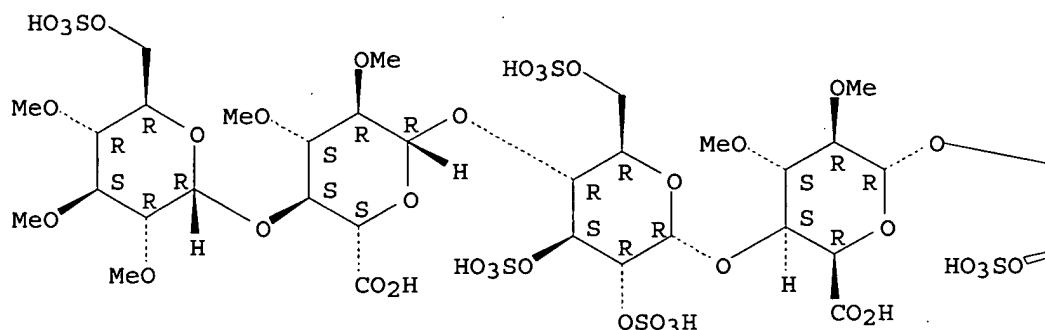


RN 511511-56-1 HCAPLUS

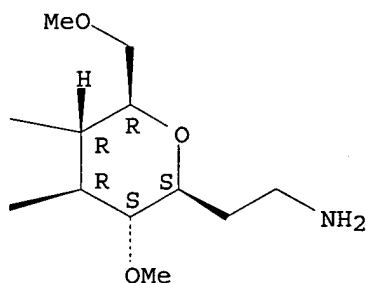
CN D-glycero-D-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.6)-1-amino-3,7-anhydro-1,2-dideoxy-4,8-di-O-methyl-, 5-(hydrogen sulfate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

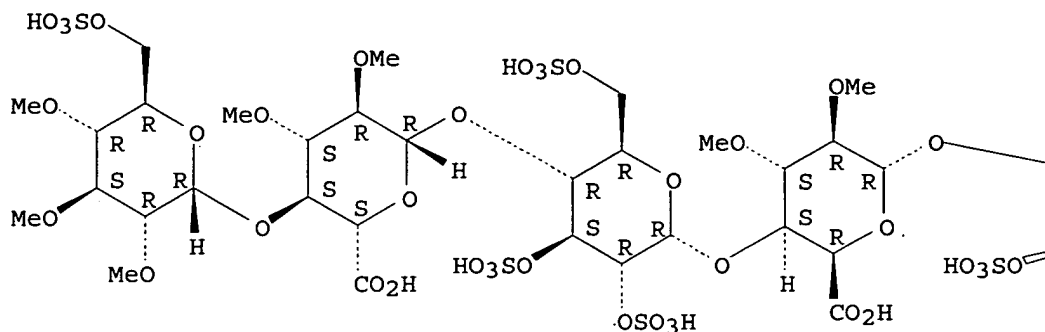


RN 511511-58-3 HCAPLUS

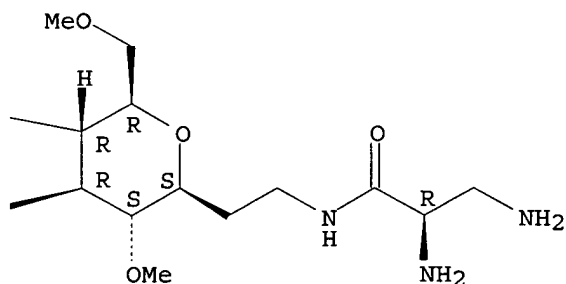
CN D-glycero-D-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.6)-3,7-anhydro-1,2-dideoxy-1-[[[(2R)-2,3-diamino-1-oxopropyl]amino]-4,8-di-O-methyl-, 5-(hydrogen sulfate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



IT 511511-50-5P 511511-51-6P 511511-53-8P

511511-55-0P 511511-57-2P

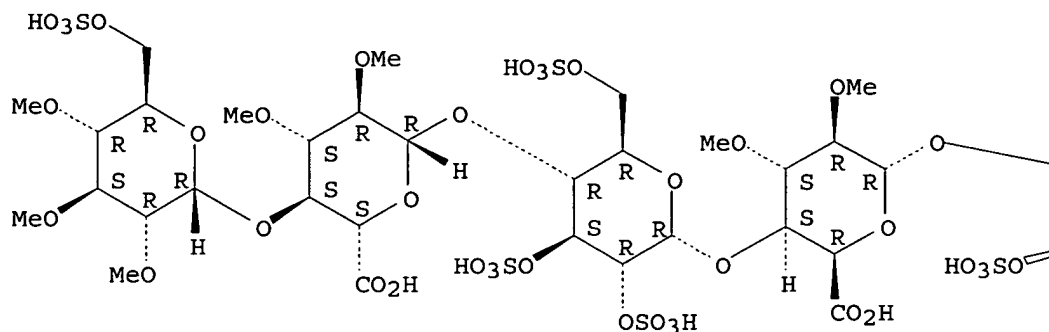
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(prepn. and anti-factor Xa activity of heparin oligosaccharide analogs)

RN 511511-50-5 HCAPLUS

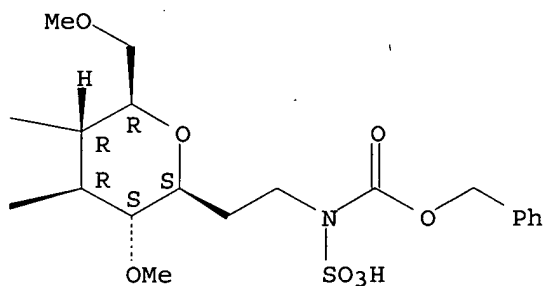
CN D-glycero-D-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-  
glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-  
(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-  
2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.6)-3,7-anhydro-1,2-  
dideoxy-4,8-di-O-methyl-1-[[ (phenylmethoxy) carbonyl] sulfoamino]-,  
5-(hydrogen sulfate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

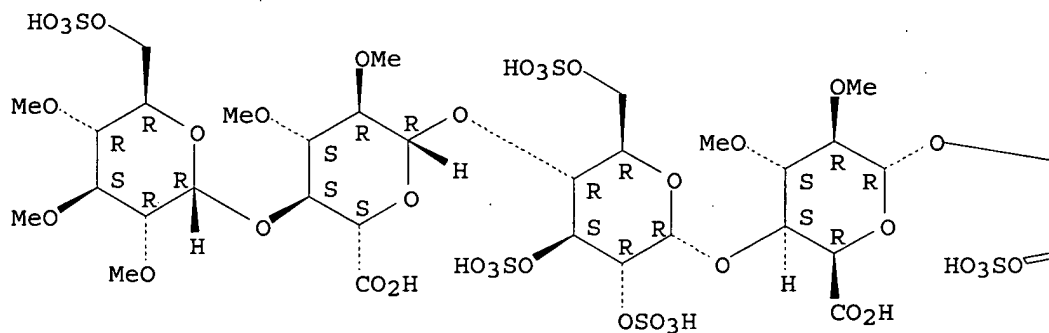


RN 511511-51-6 HCAPLUS

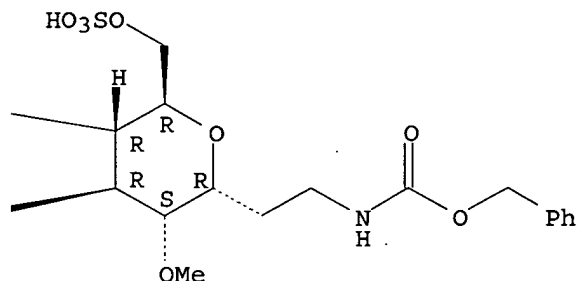
CN D-glycero-L-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.3)-2,6-anhydro-7,8-dideoxy-5-O-methyl-8-[[ (phenylmethoxy) carbonyl] amino]-, 1,4-bis (hydrogen sulfate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

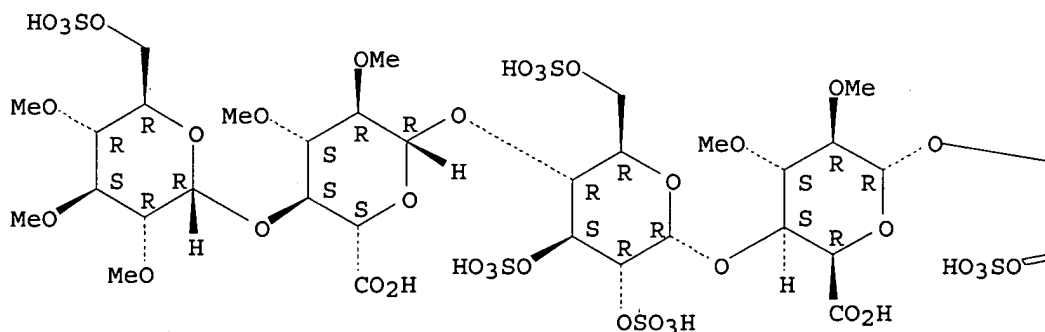


RN 511511-53-8 HCAPLUS

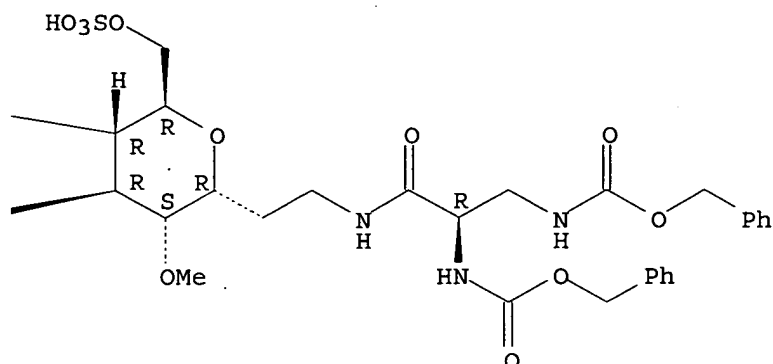
CN D-glycero-L-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.3)-2,6-anhydro-7,8-dideoxy-5-O-methyl-8-[[ (2R)-1-oxo-2,3-bis[[ (phenylmethoxy) carbonyl] amino]propyl]amino]-, 1,4-bis(hydrogen sulfate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

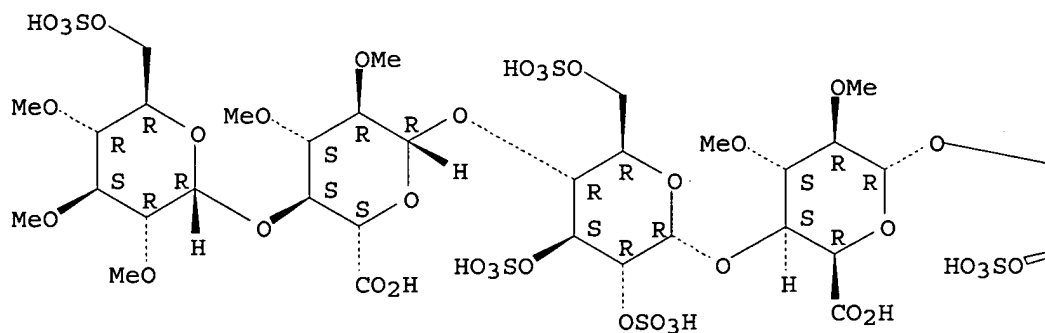


RN 511511-55-0 HCAPLUS

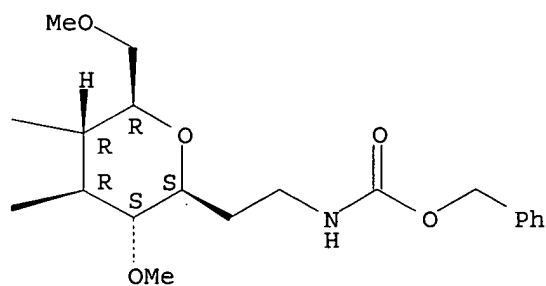
CN D-glycero-D-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.6)-3,7-anhydro-1,2-dideoxy-4,8-di-O-methyl-1-[[ (phenylmethoxy) carbonyl] amino]-, 5-(hydrogen sulfate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

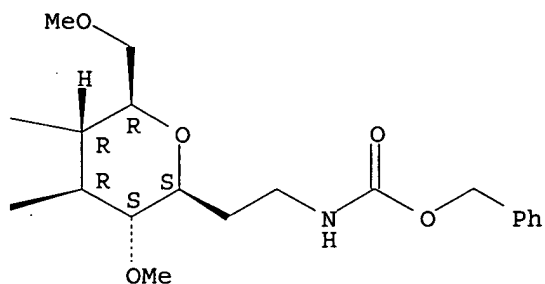
PAGE 1-A



PAGE 1-B



PAGE 1-B

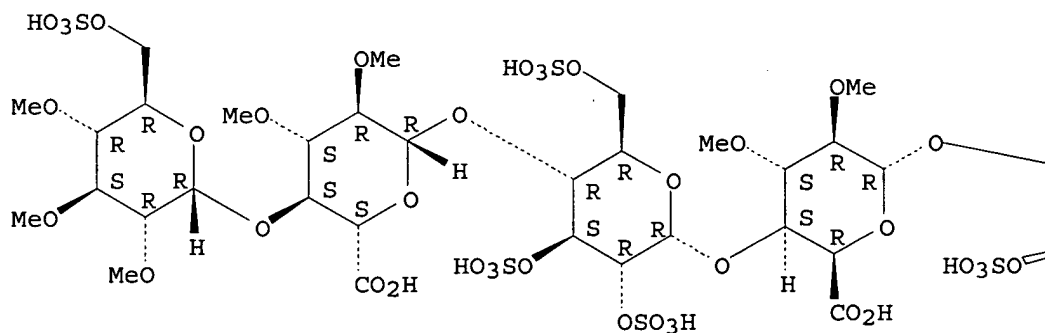


RN 511511-57-2 HCAPLUS

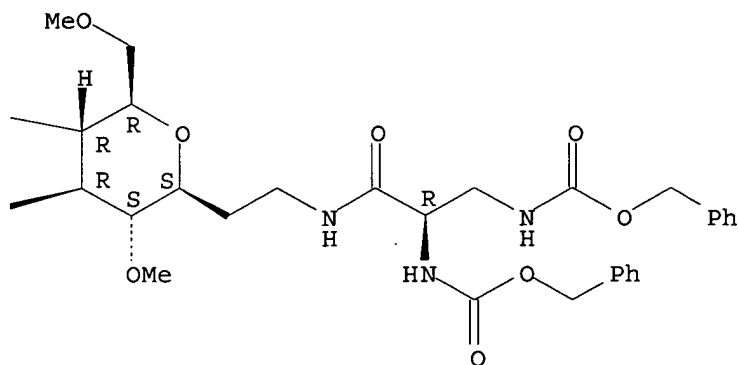
CN D-glycero-D-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.6)-3,7-anhydro-1,2-dideoxy-4,8-di-O-methyl-1-[[ (2R)-1-oxo-2,3-bis[[ (phenylmethoxy) carbonyl] amino]propyl]amino]-, 5-(hydrogen sulfate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

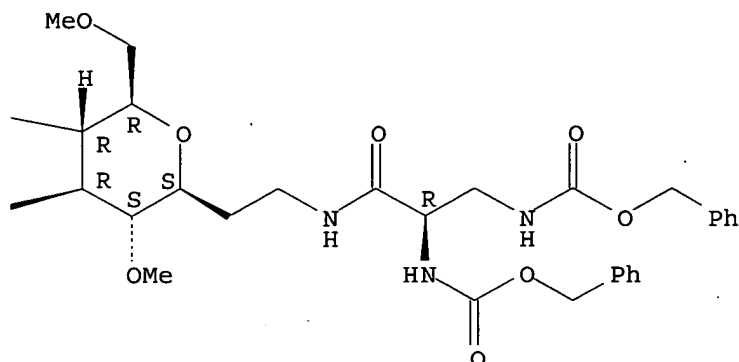


PAGE 1-B





PAGE 1-B



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 4 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:846295 HCAPLUS

DOCUMENT NUMBER: 138:221772

TITLE: A first total synthesis of a novel sulfated ganglioside, 3'-O-sulfo-GM1b

AUTHOR(S): Komori, Tatsuki; Kondo, Saori; Ando, Hironume; Ishida, Hideharu; Kiso, Makoto

CORPORATE SOURCE: Department of Applied Bio-organic Chemistry, Gifu University, Gifu, 501-1193, Japan

SOURCE: Carbohydrate Research (2002), 337(18), 1679-1686  
CODEN: CRBRAT; ISSN: 0008-6215

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:221772

AB A first total synthesis of a novel sulfated ganglioside, 3'-O-sulfo-GM1b, is described. The suitably protected gangliotriose (GgOSE3) deriv., 2-(trimethylsilyl)ethyl (2-acetamido-4,6-O-benzylidene-2-deoxy-.beta.-D-galactopyranosyl)-(1.fwdarw.4)-(2,6-di-O-benzyl-3-O-p-methoxybenzyl-.beta.-D-galactopyranosyl)-(1.fwdarw.4)-2,3,6-tri-O-benzyl-.beta.-D-glucopyranoside was glycosylated with the .alpha.-NeuAc-(2.fwdarw.3)-galactose donor to give the protected GM1b oligosaccharide (95%). After proper manipulation of the protecting groups, the oligosaccharide was converted into the target ganglioside by the successive introduction of the ceramide and sulfo groups, followed by complete deprotection.

IT 500868-46-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

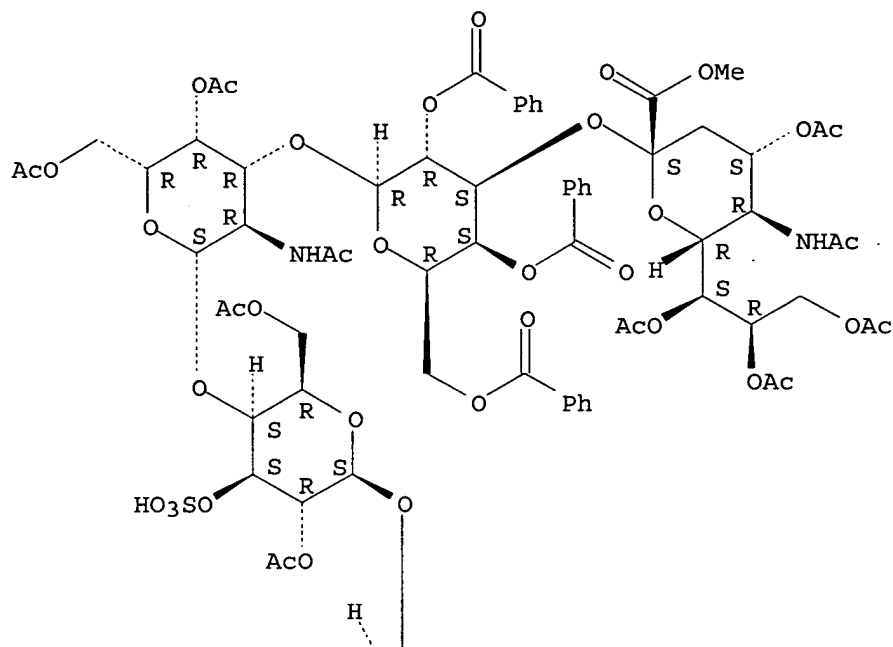
(prepn. of a sulfated ganglioside, 3'-O-sulfo-GM1b, via protecting group manipulations)

RN 500868-46-2 HCAPLUS

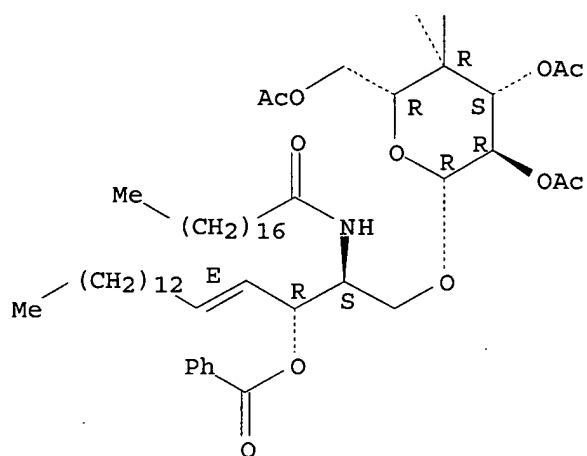
CN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-4,6-di-O-acetyl-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-acetyl-.beta.-D-glucopyranosyl]oxy)methyl]-2-(benzoyloxy)-3-heptadecenyl]-, monosodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.

PAGE 1-A



PAGE 2-A



● Na

IT 500868-27-9P  
RL: SPN (Synthetic preparation); PREP (Preparation)

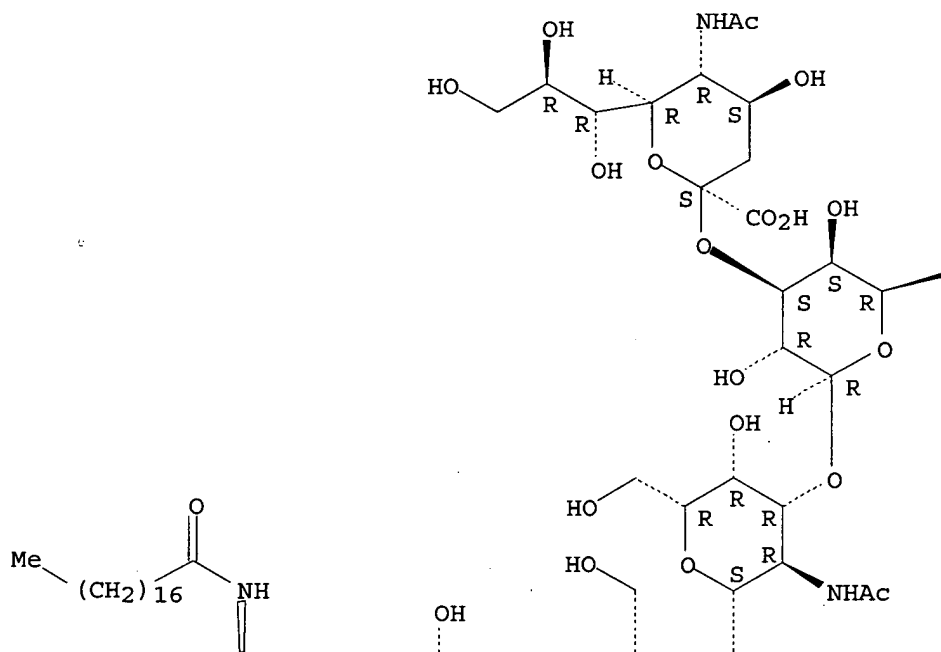
(prepn. of a sulfated ganglioside, 3'-O-sulfo-GM1b, via protecting group manipulations)

RN 500868-27-9 HCAPLUS

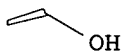
CN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranosyl]oxy]methyl]-2-hydroxy-3-heptadecenyl]-, disodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).  
Double bond geometry as shown.

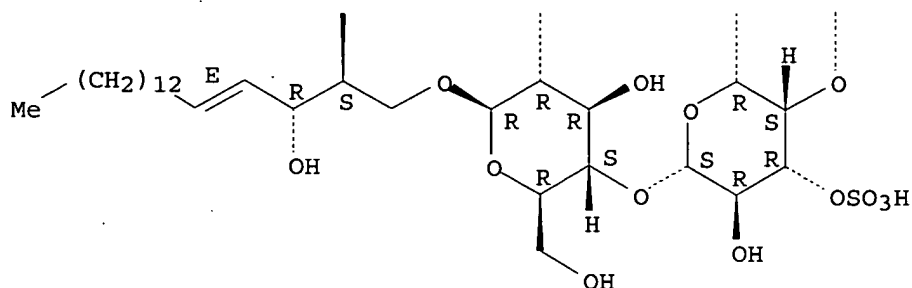
PAGE 1-A



PAGE 1-B



PAGE 2-A



● 2 Na

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 5 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2000:561436 HCAPLUS

DOCUMENT NUMBER: 133:310090

TITLE: First total synthesis of sialylated and sulfated Lewisx mucin Core 2 structures as potential tumor associated antigens

AUTHOR(S): Huang, B.-G.; Jain, R. K.; Locke, R. D.; Alderfer, J. L.; Tabaczynski, W. A.; Matta, K. L.

CORPORATE SOURCE: Molecular & Cellular Biophysics, Roswell Park Cancer Institute, Buffalo, NY, 14263, USA

SOURCE: Tetrahedron Letters (2000), 41(33), 6279-6284

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 133:310090

AB Two branched core structures, (3-O-SO<sub>3</sub>Na)Gal.beta.1,4(Fuc.alpha.1,3)GlcNAc.beta.1,6(NeuAc.alpha.2,3Gal.beta.1,3)GalNAc.alpha.OMe and its positional isomer NeuAc.alpha.2,3Gal.beta.1,4(Fuc.alpha.1,3)GlcNAc.beta.1,6(3-OSO<sub>3</sub>Na-Gal.beta.1,3)GalNAc.alpha.OMe, were chem. synthesized for the first time as potential tumor assocd. antigens.

IT 302599-28-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

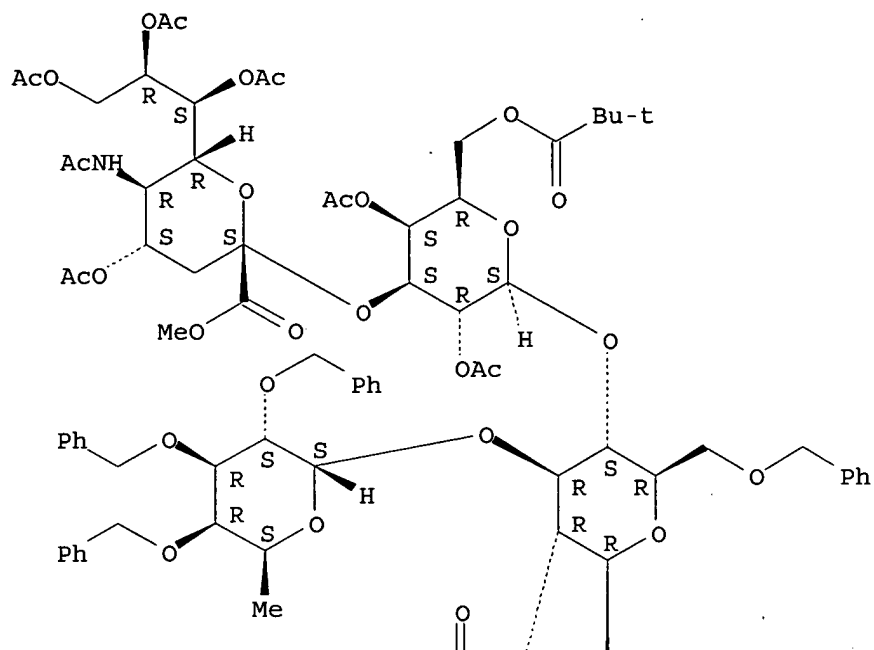
(total synthesis of sialylated and sulfated Lewisx mucin core structures as potential tumor assocd. antigens)

RN 302599-28-6 HCAPLUS

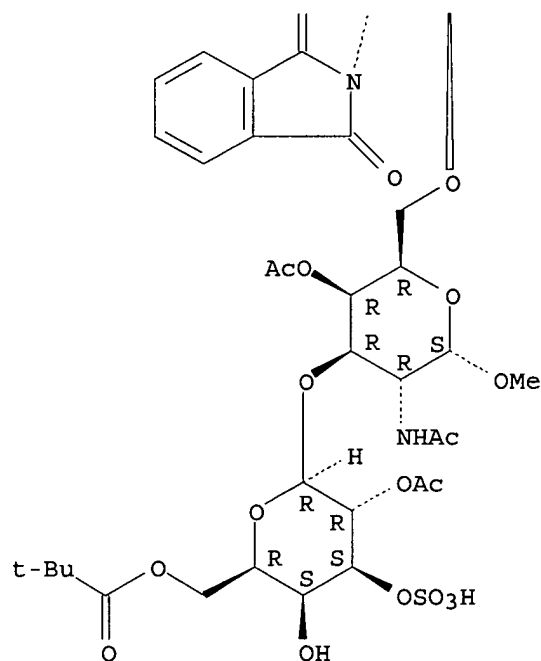
CN .alpha.-D-Galactopyranoside, methyl O-2-O-acetyl-6-O-(2,2-dimethyl-1-oxopropyl)-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4-di-O-acetyl-6-O-(2,2-dimethyl-1-oxopropyl)-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[6-deoxy-2,3,4-tris-O-(phenylmethyl)-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-2-deoxy-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-6-O-(phenylmethyl)-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-2-(acetyl-amino)-2-deoxy-, 4-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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IT 302599-13-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (total synthesis of sialylated and sulfated Lewisx mucin core)

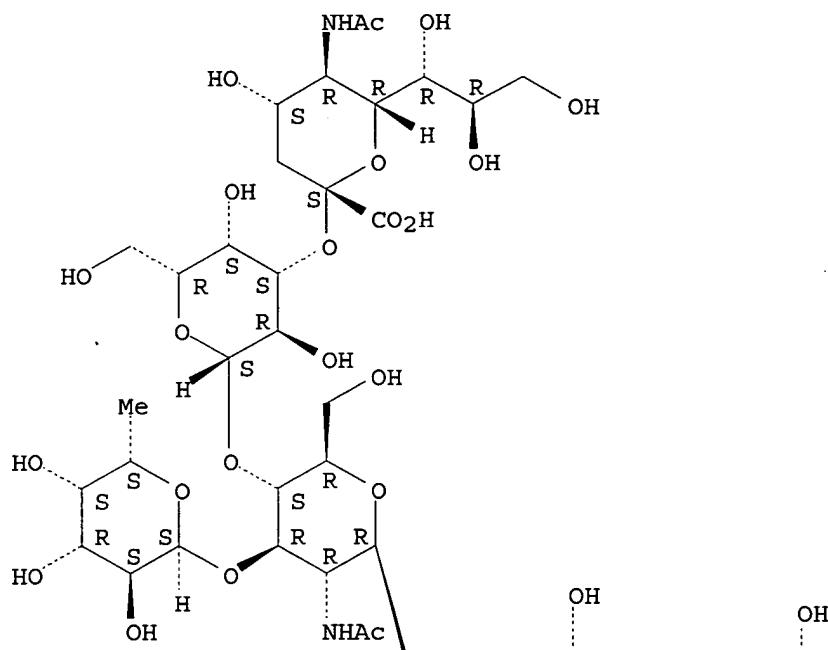
structures as potential tumor assocd. antigens)

RN 302599-13-9 HCAPPLUS

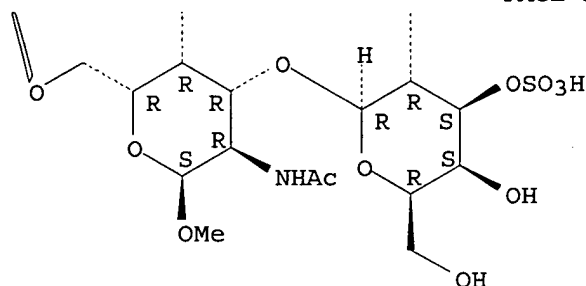
CN .alpha.-D-Galactopyranoside, methyl O-(N-acetyl-.alpha.-neuraminosyl)-  
 (2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[O-6-deoxy-.alpha.-  
 L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-  
 glucopyranosyl-(1.fwdarw.6)-O-[3-O-sulfo-.beta.-D-galactopyranosyl-  
 (1.fwdarw.3)]-2-(acetylamino)-2-deoxy-, monosodium salt (9CI) (CA INDEX  
 NAME)

Absolute stereochemistry. Rotation (+).

PAGE 1-A



PAGE 2-A



● Na

REFERENCE COUNT:

14

THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 6 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:592289 HCAPLUS

DOCUMENT NUMBER: 129:312420

TITLE: Sulfated di-, tri- and tetraantennary N-glycans in human Tamm-Horsfall glycoprotein

AUTHOR(S): Van Rooijen, Johannes J. M.; Kamerling, Johannes P.; Vliegenthart, Johannes F. G.

CORPORATE SOURCE: Department of Bio-Organic Chemistry, Utrecht University, Neth.

SOURCE: European Journal of Biochemistry (1998), 256(2), 471-487

CODEN: EJBCAI; ISSN: 0014-2956

PUBLISHER: Springer-Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The primary structures of 32 sulfated di-, tri- and tetraantennary N-glycans of human Tamm-Horsfall glycoprotein (THP) have been detd. THP was isolated from the urine of one healthy male donor. The intact carbohydrate chains were released by PNGase-F and fractionated via FPLC on Resource Q, HPLC on LiChrosorb-NH2, and high-pH anion-exchange chromatog. on CarboPac PA-1. Characterizations were performed using 500-MHz and 600-MHz 1H-NMR spectroscopy, in combination with sialidase treatments. The type of characterized N-glycans ranged from monosulfated to trisulfated N-glycans, whereby the sulfate groups were present as 3-O-sulfated Gal (Gal3S) and 4-O-sulfated GalNAc (Gal-NAc4S). A compilation of the established structures is given.

IT 130847-64-2 145288-68-2 145288-69-3  
147998-52-5 214825-70-4 214825-73-7  
214825-75-9 214825-77-1 214825-79-3  
214825-80-6 214825-81-7 214825-83-9  
214825-85-1 214825-91-9 214825-93-1  
214825-96-4 214825-97-5 214825-98-6  
214825-99-7 214826-00-3 214826-01-4  
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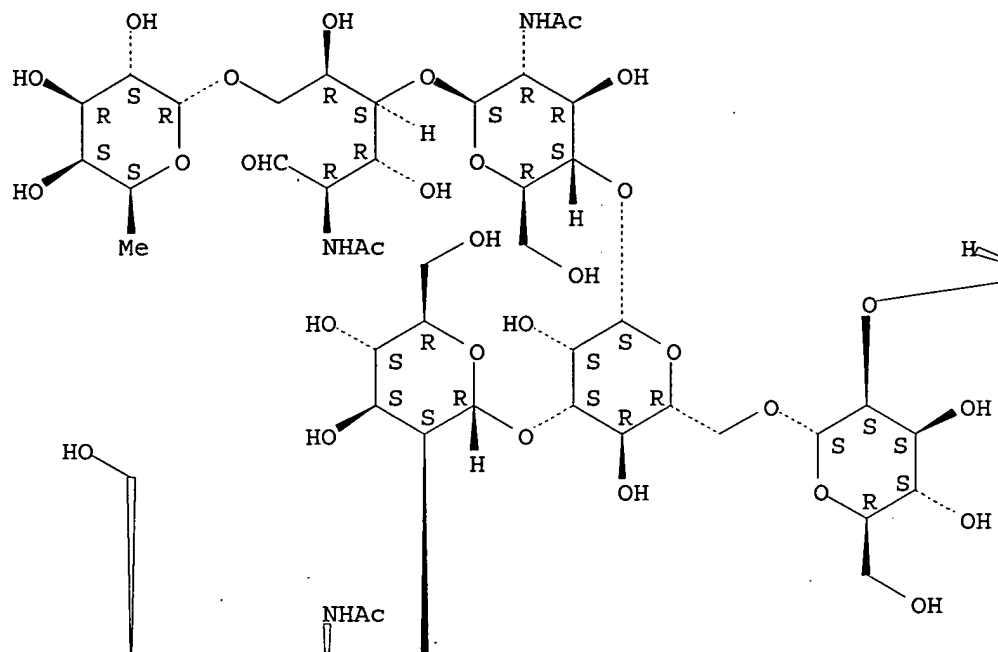
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)  
(characterization of sulfated N-glycans of human Tamm-Horsfall glycoprotein)

RN 130847-64-2 HCAPLUS

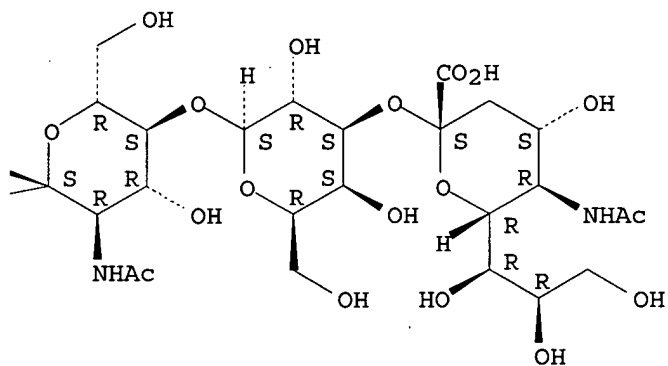
CN D-Glucose, O-2-(acetylamino)-2-deoxy-4-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

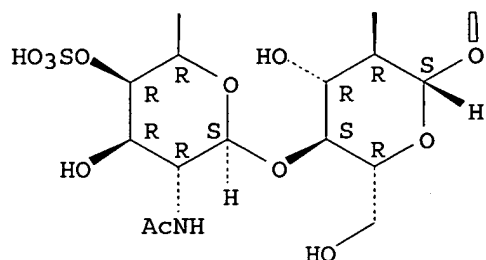


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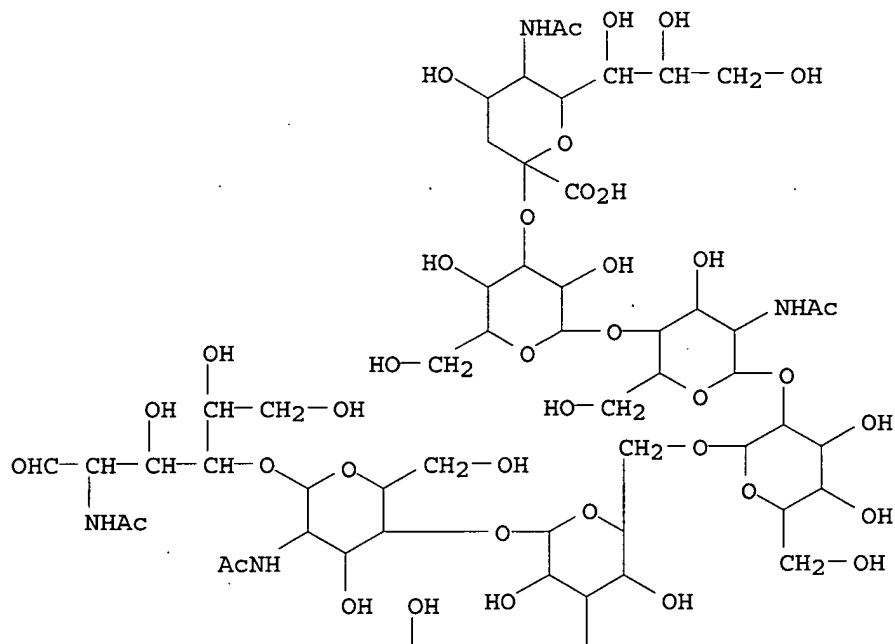
PAGE 2-A



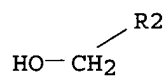
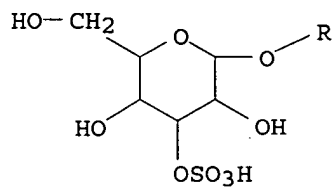
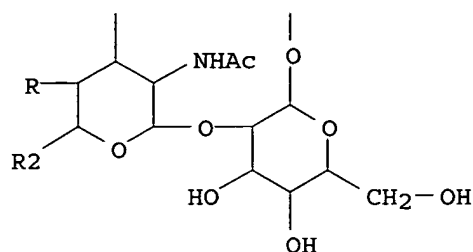
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(CA INDEX NAME)

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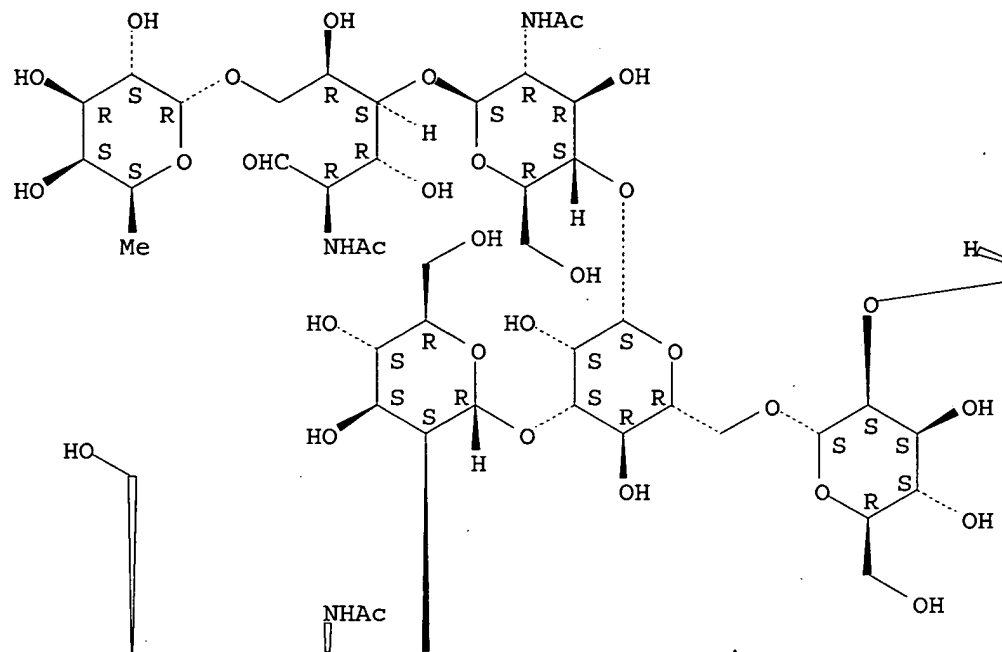
PAGE 2-A



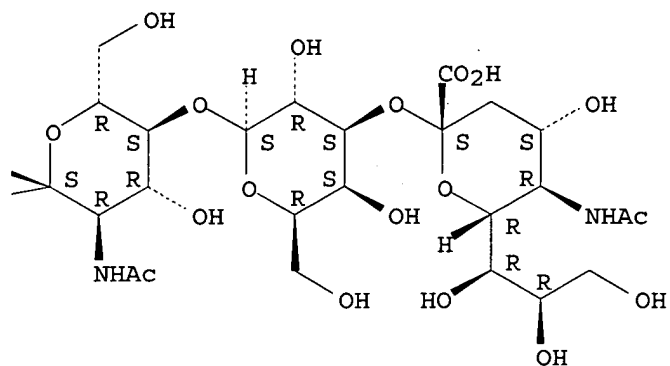
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Absolute stereochemistry.

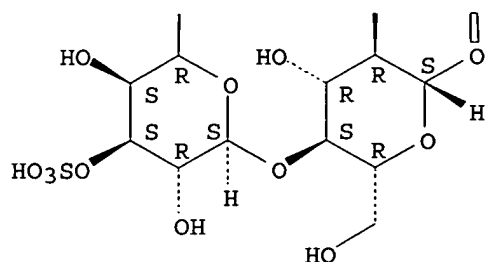
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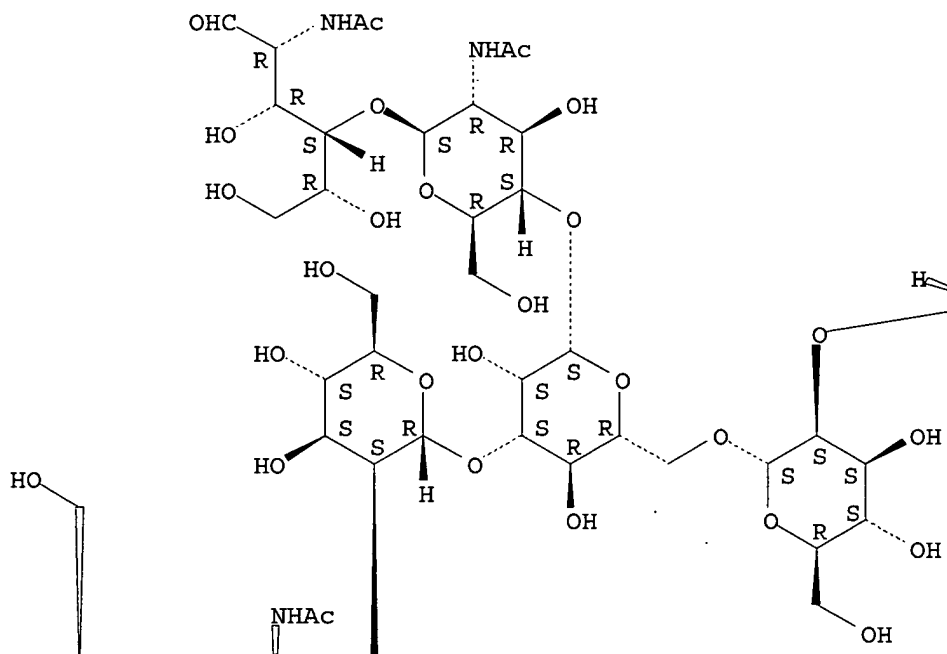
PAGE 2-A



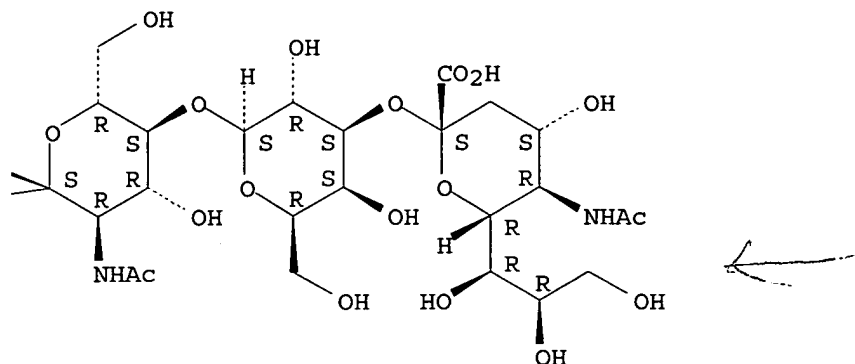
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Absolute stereochemistry.

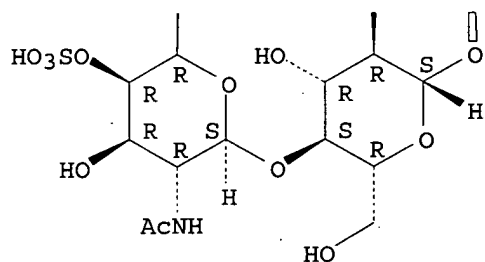
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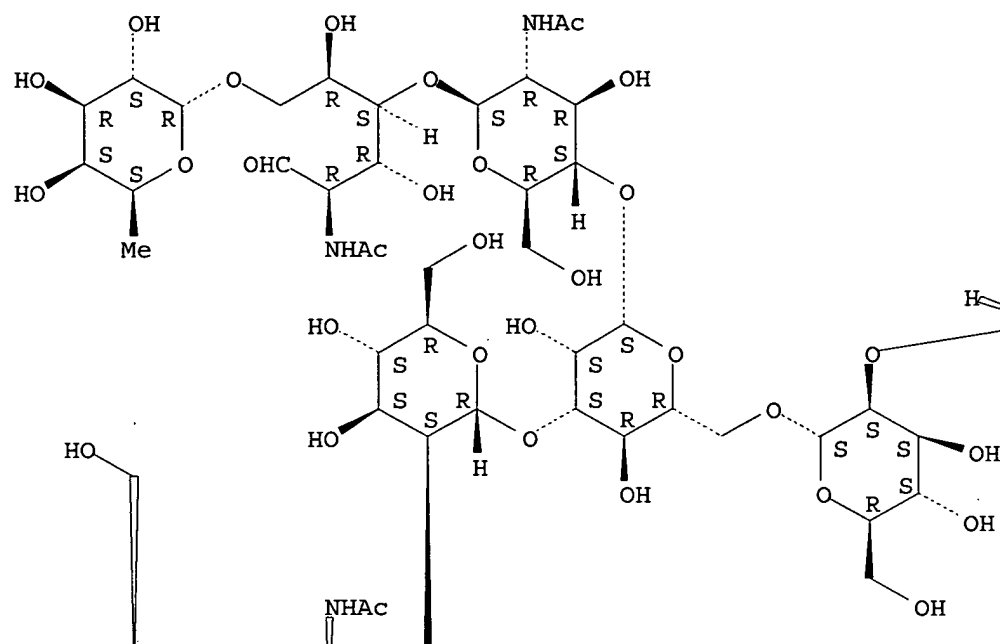


RN 214825-70-4 HCAPLUS

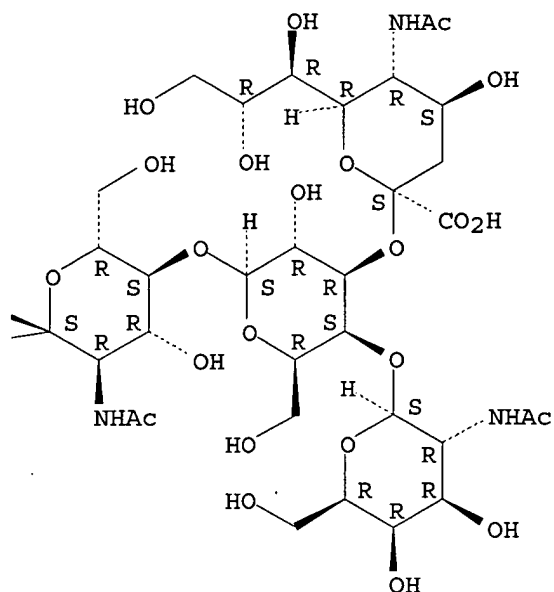
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(CA INDEX NAME)

Absolute stereochemistry.

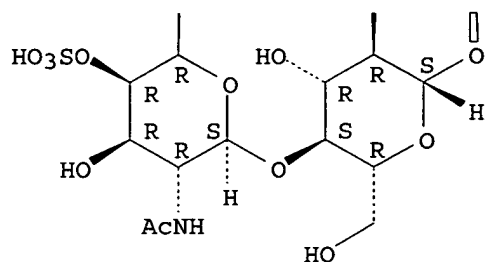
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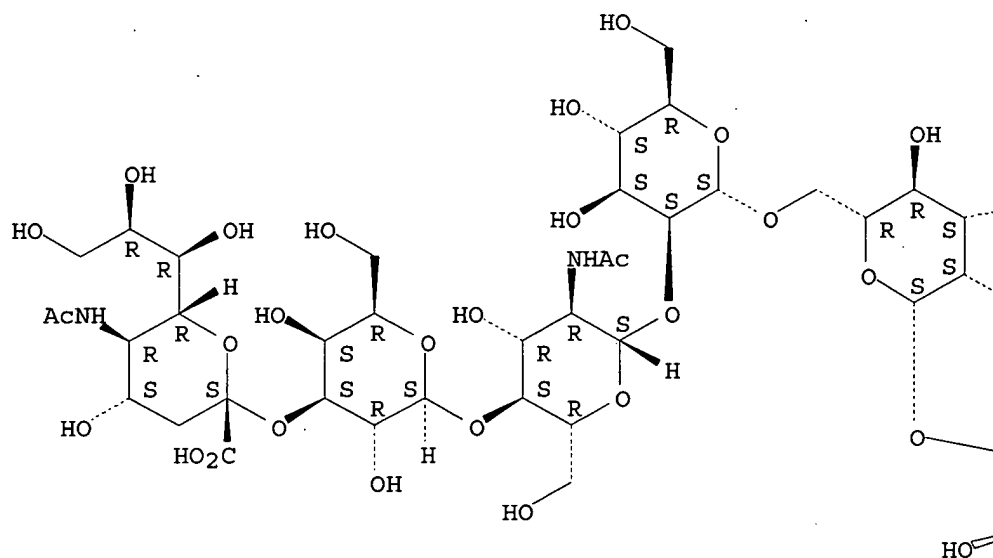


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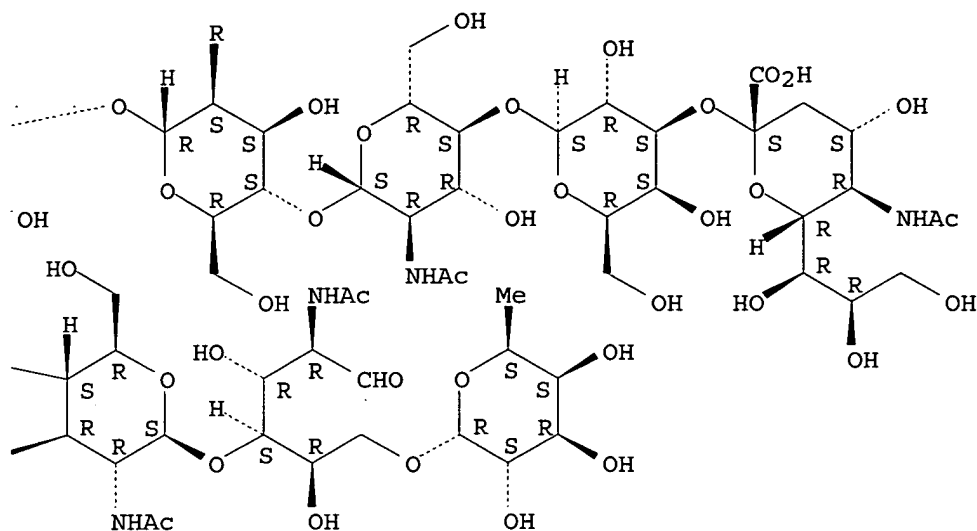
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(CA INDEX NAME)

Absolute stereochemistry.

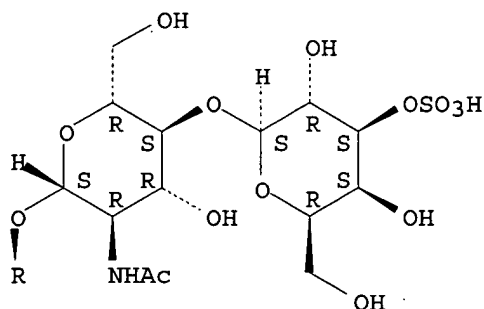
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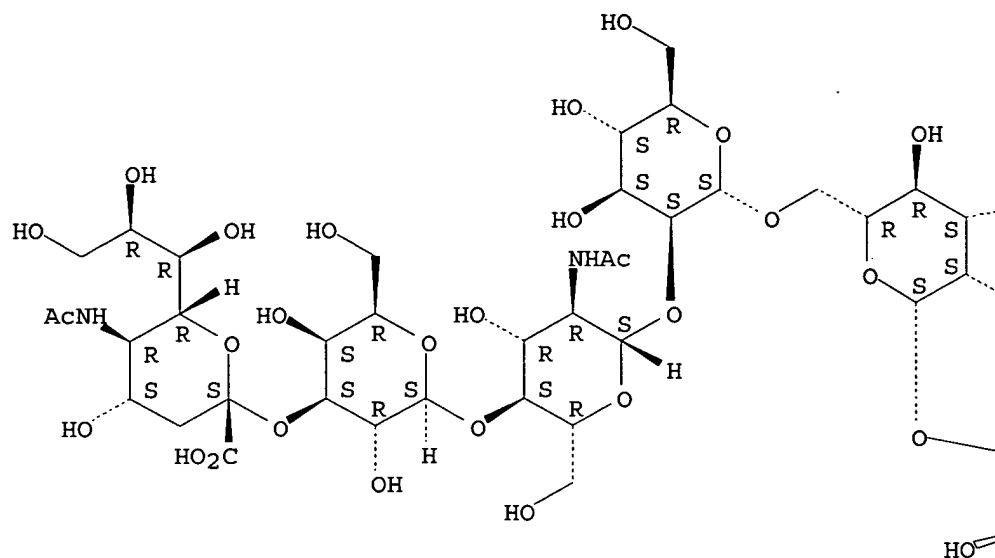
RN 214825-75-9 HCAPLUS

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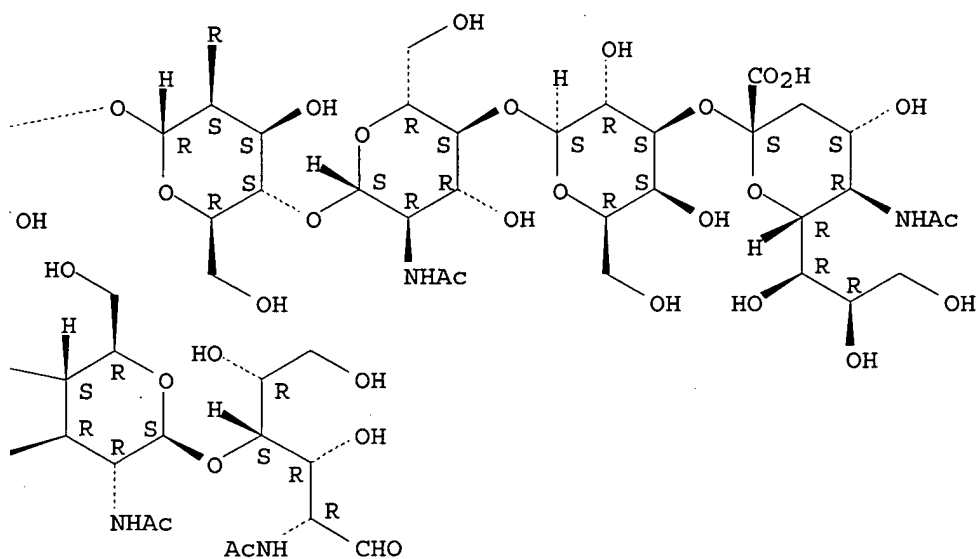
Absolute stereochemistry.



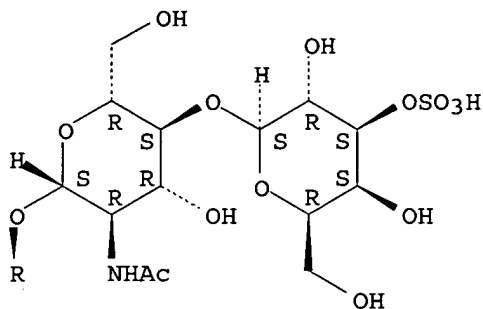
PAGE 1-A



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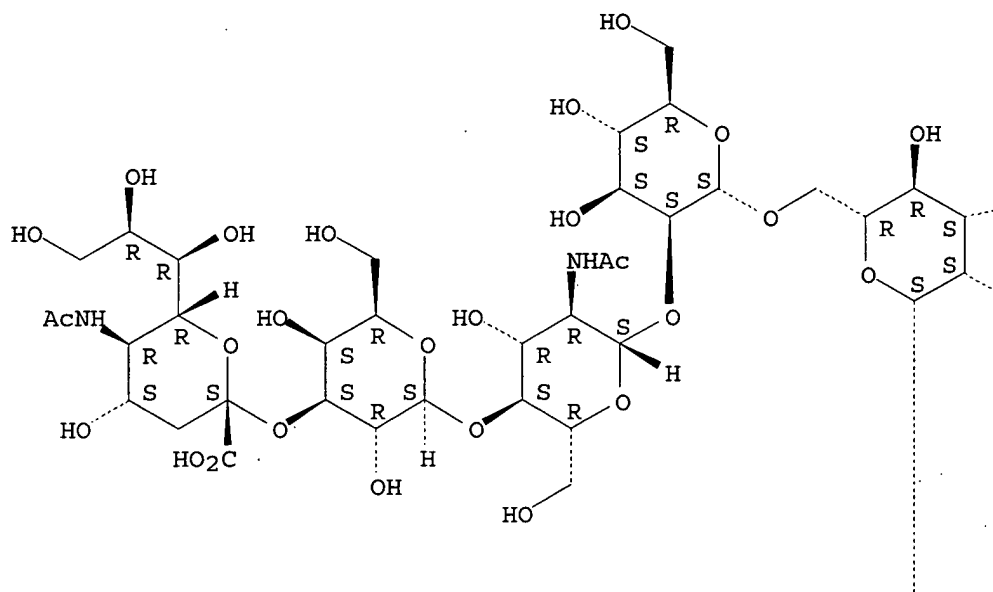


RN 214825-77-1 HCAPLUS

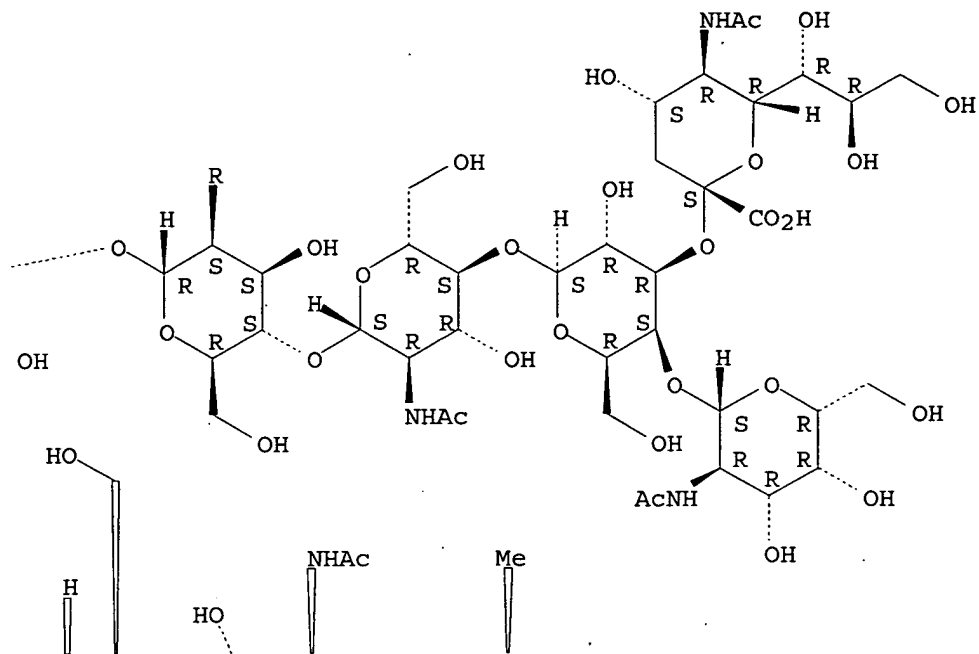
CN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.

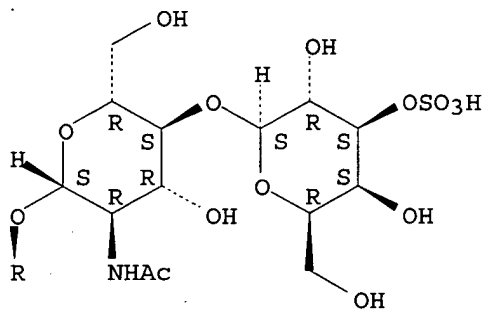
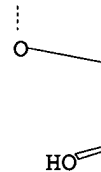
PAGE 1-A



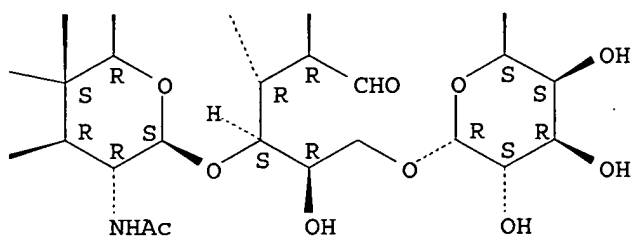
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PAGE 2-B

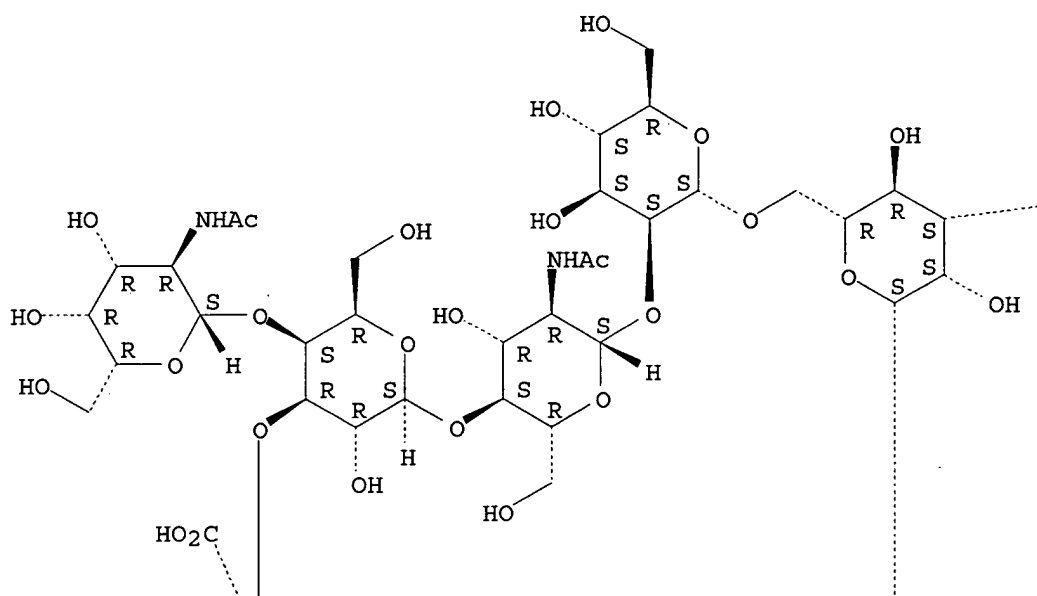


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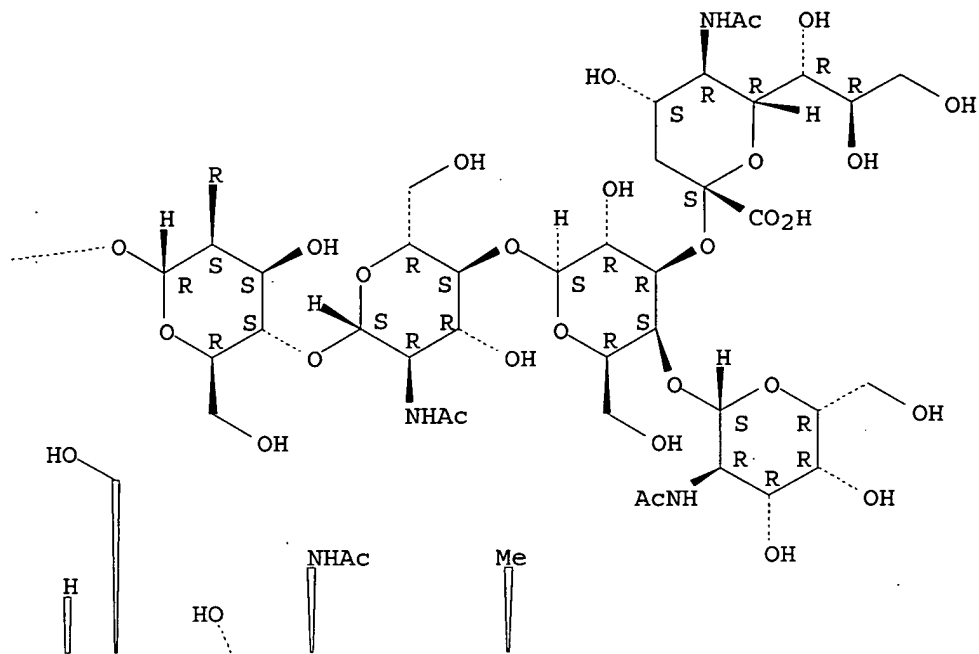
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Absolute stereochemistry.

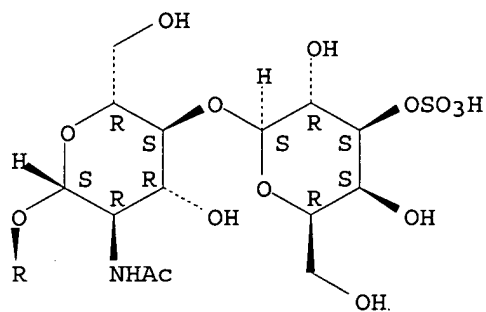
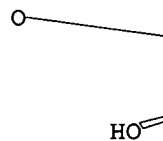
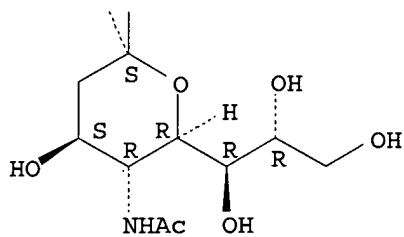
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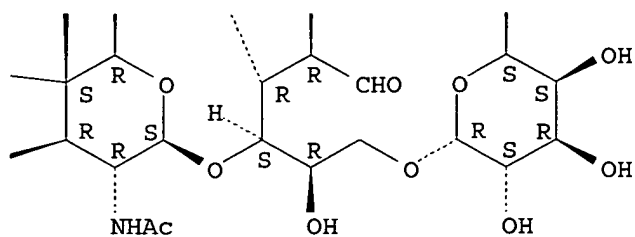
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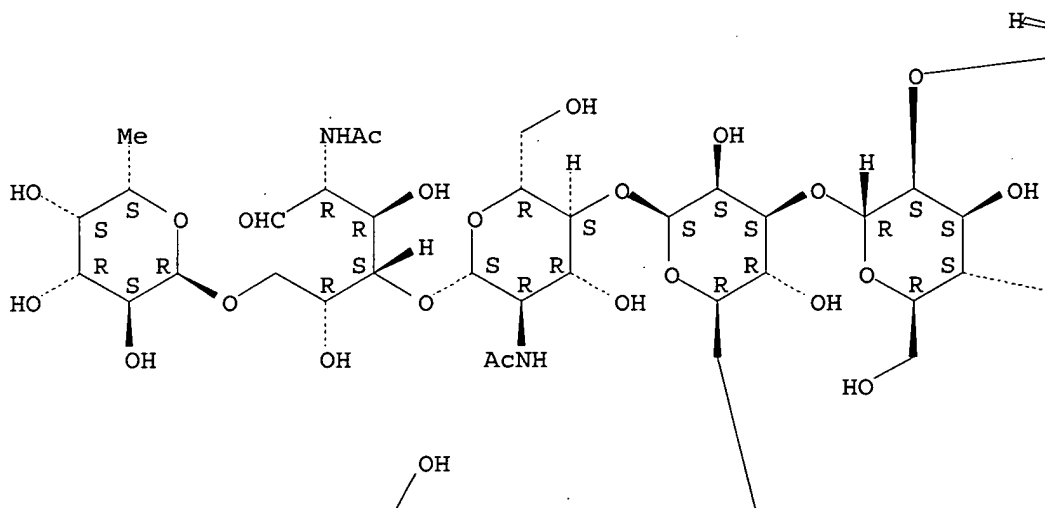


RN 214825-80-6 HCAPLUS

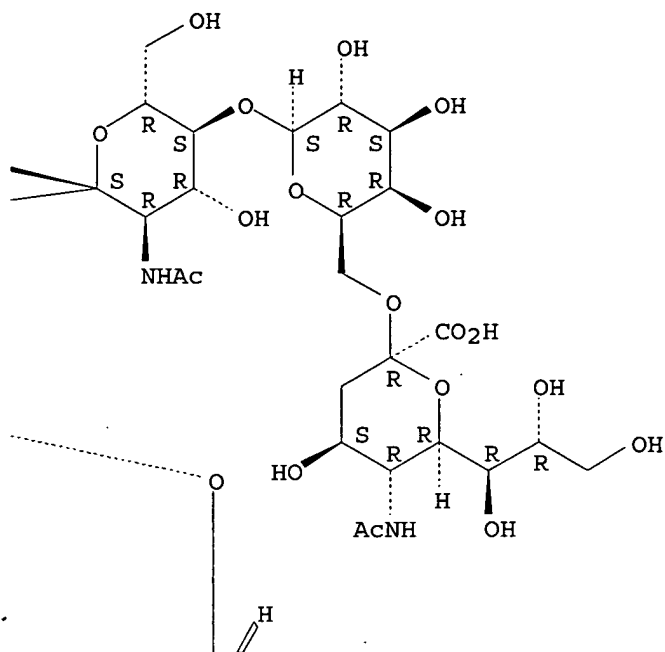
CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.6)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.

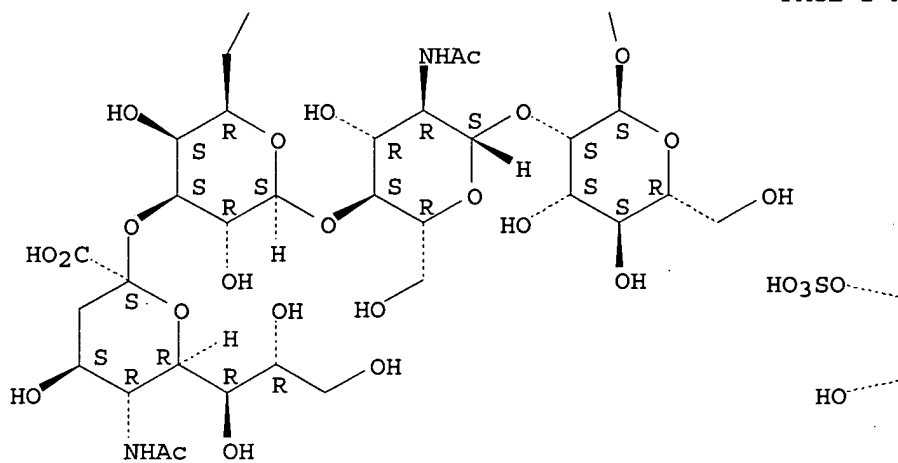
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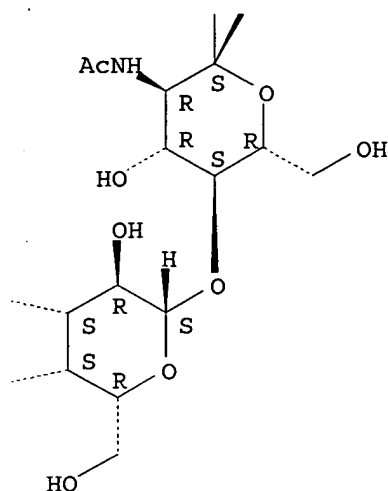
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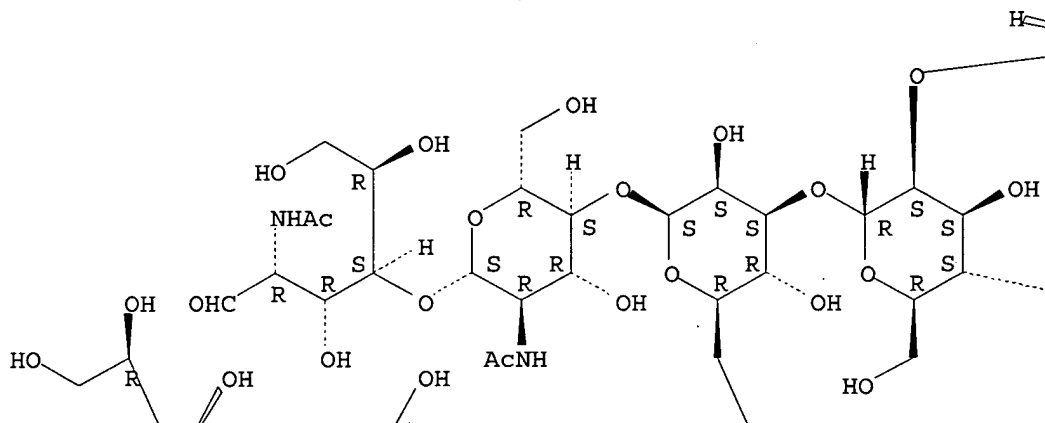


RN 214825-81-7 HCAPLUS

CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.6)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

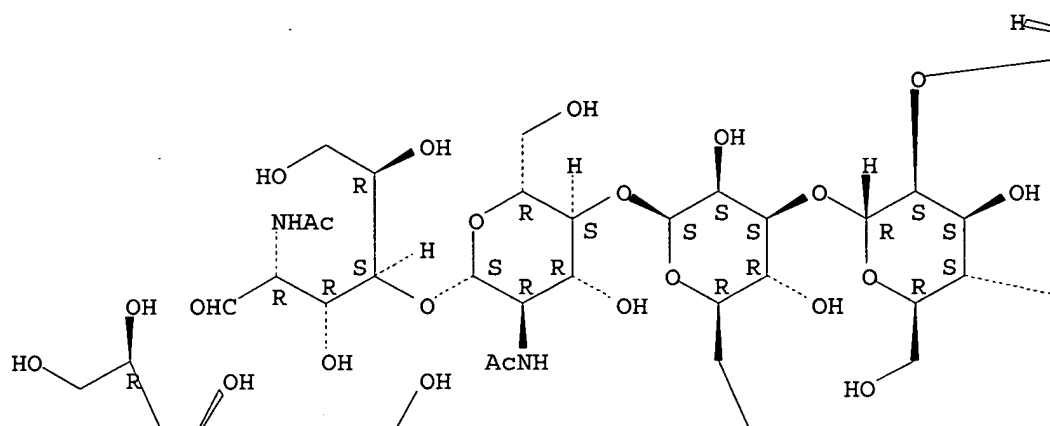
Absolute stereochemistry.

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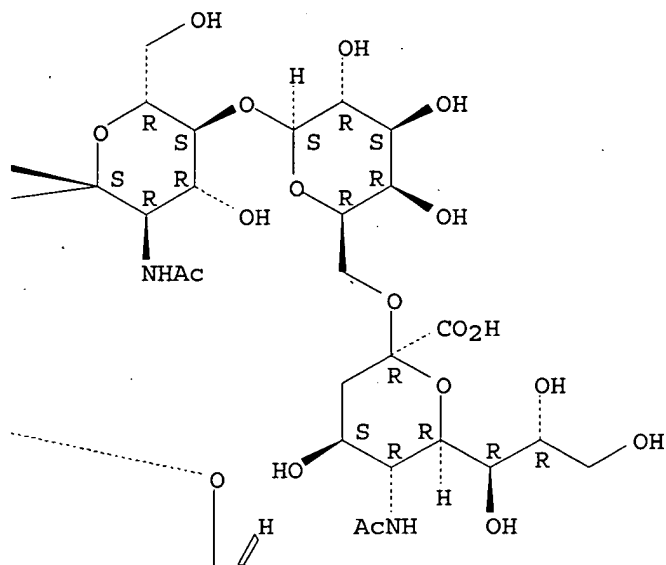




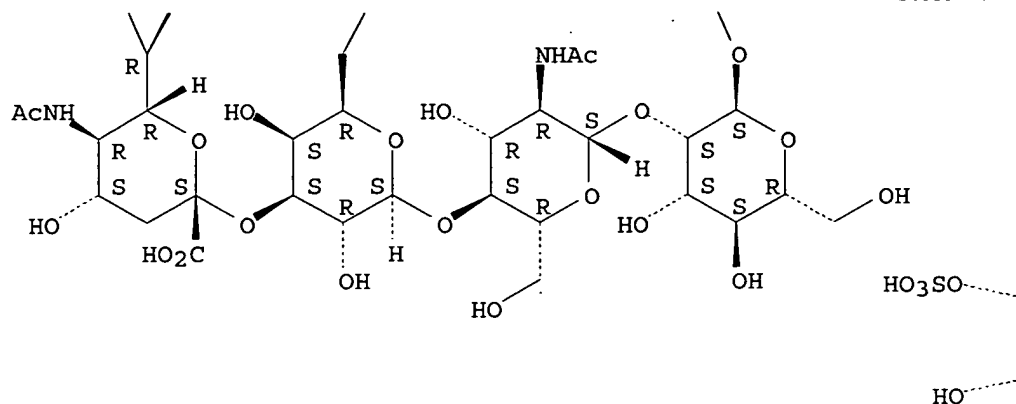
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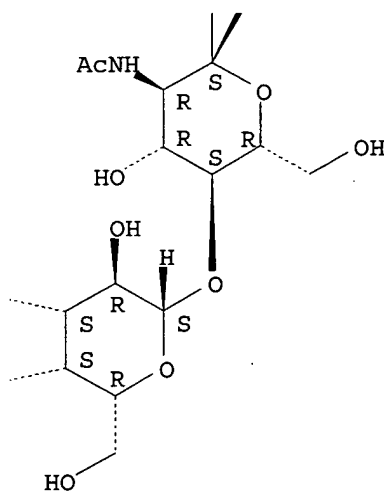
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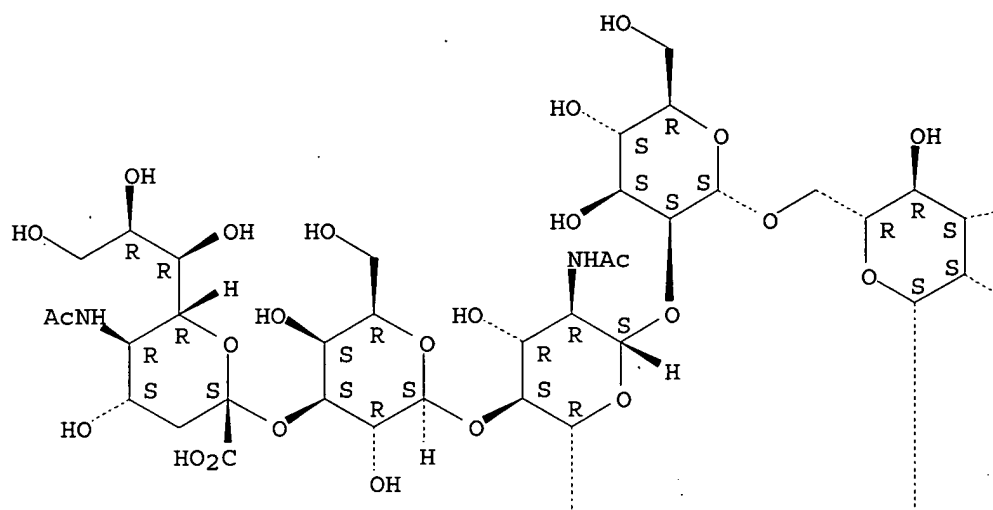


RN 214825-83-9 HCAPLUS

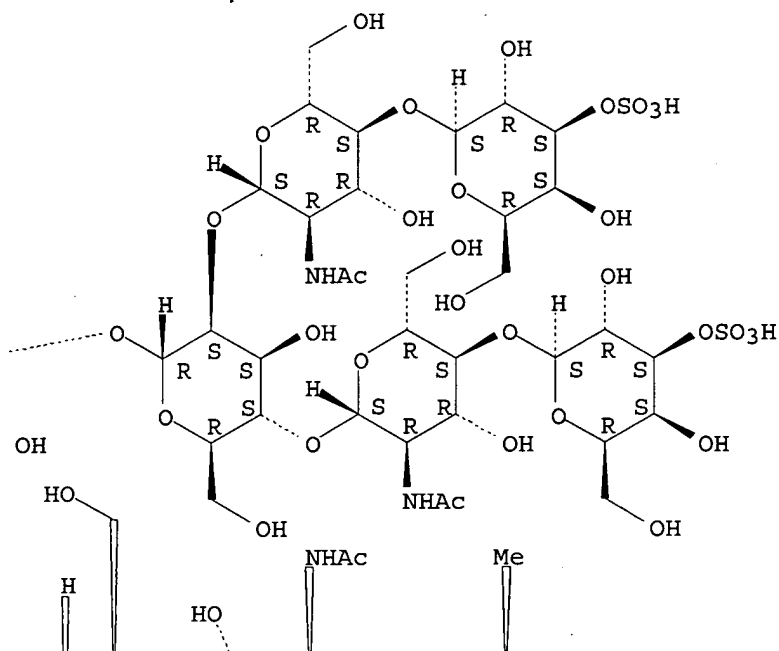
CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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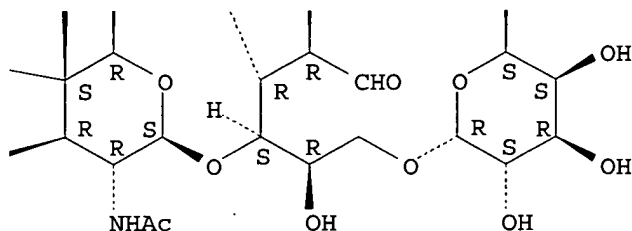
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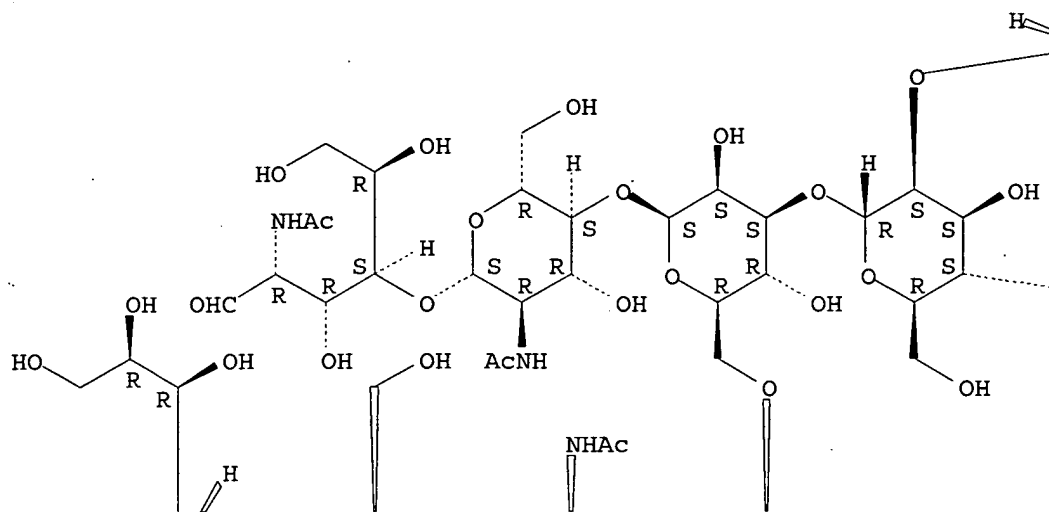


RN 214825-85-1 HCAPLUS

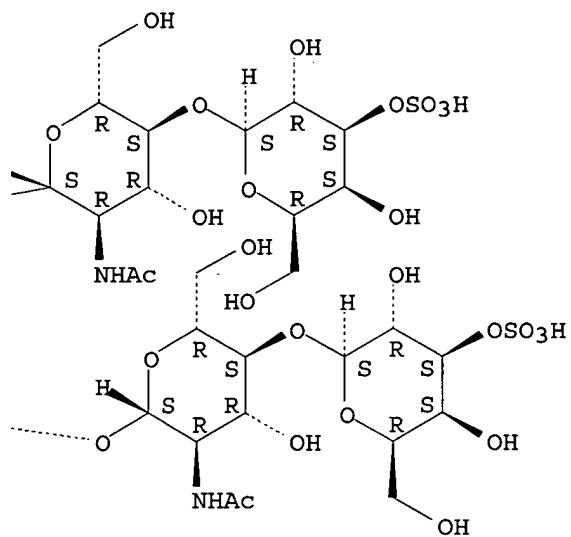
CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

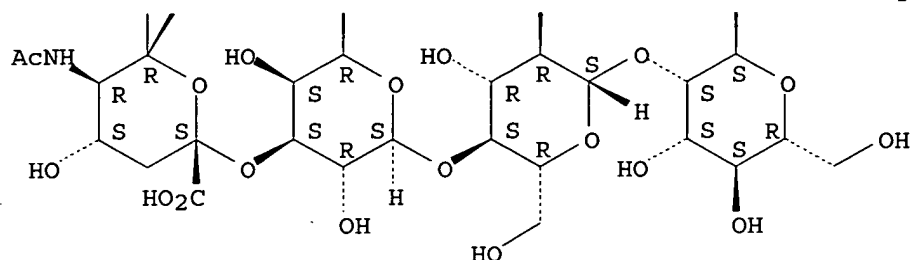
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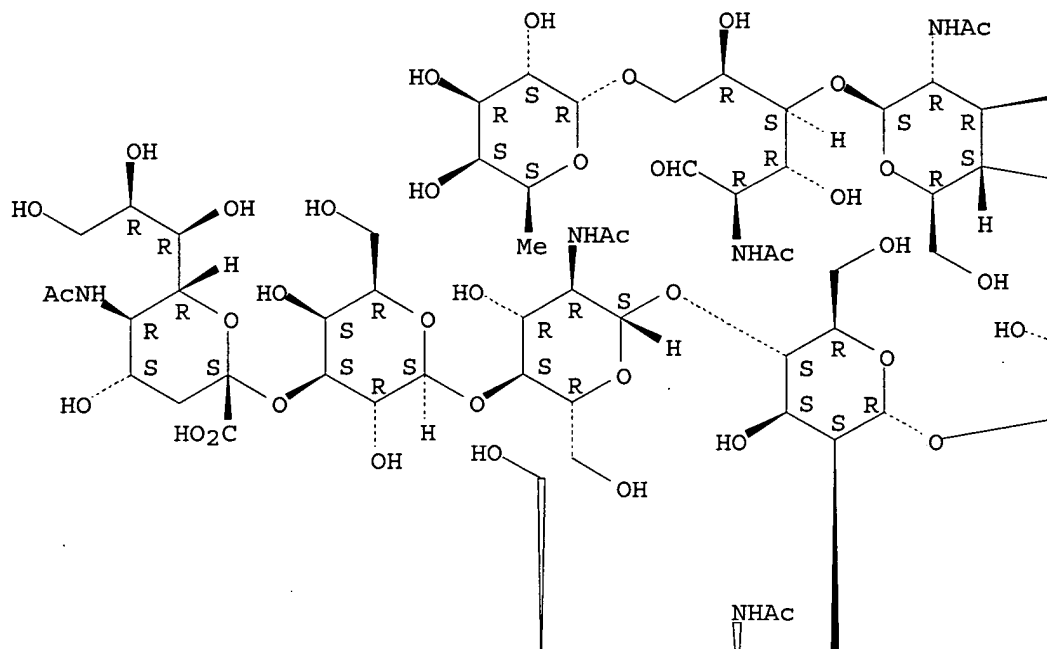


RN 214825-91-9 HCAPLUS

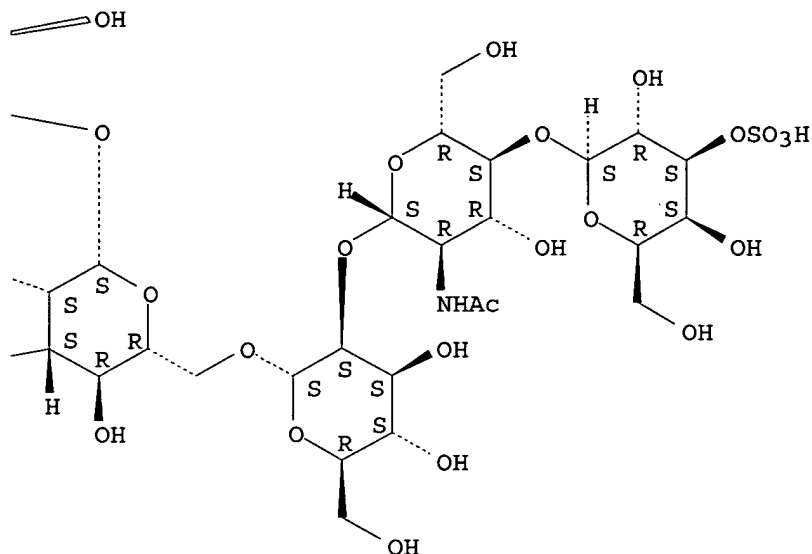
CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

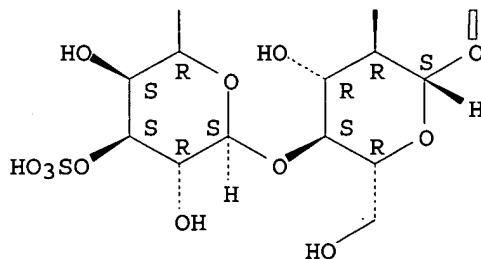
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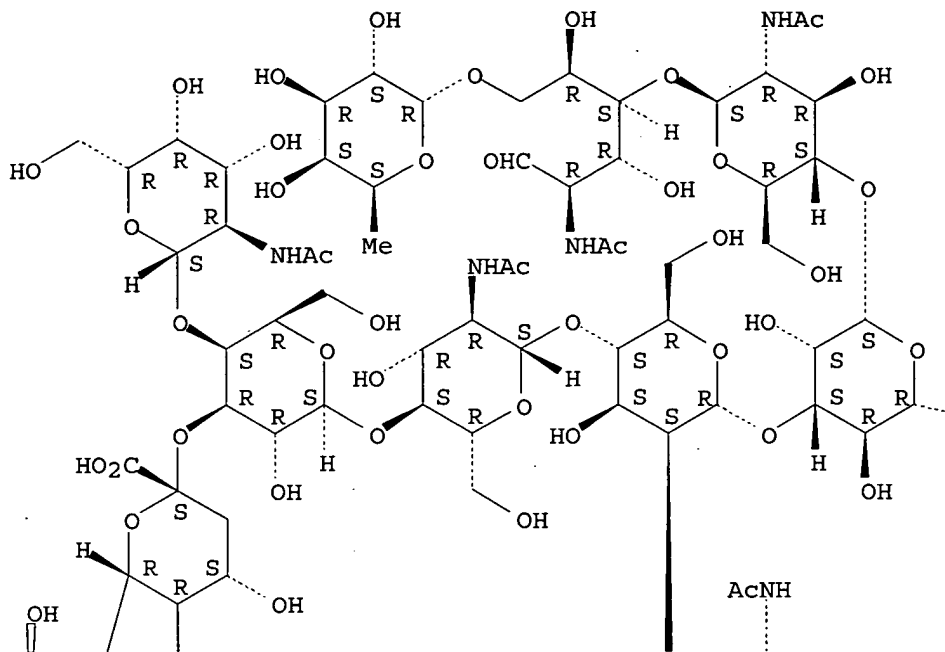


RN 214825-93-1 HCAPLUS

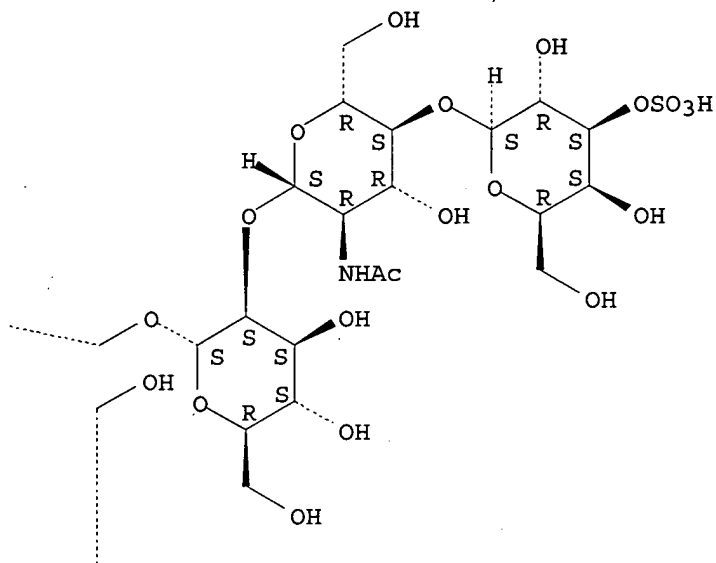
CN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

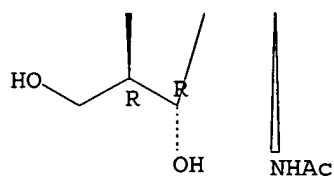
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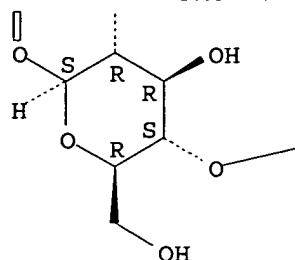
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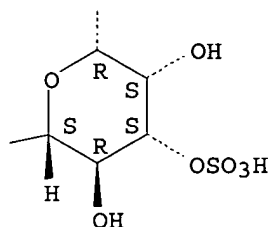




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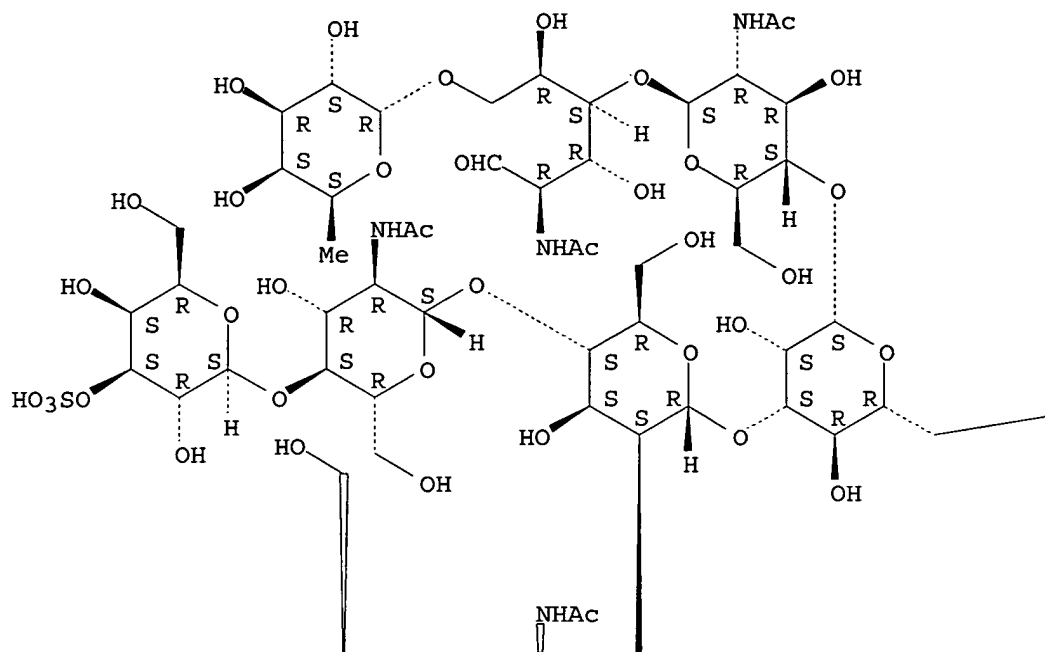


RN 214825-96-4 HCAPLUS

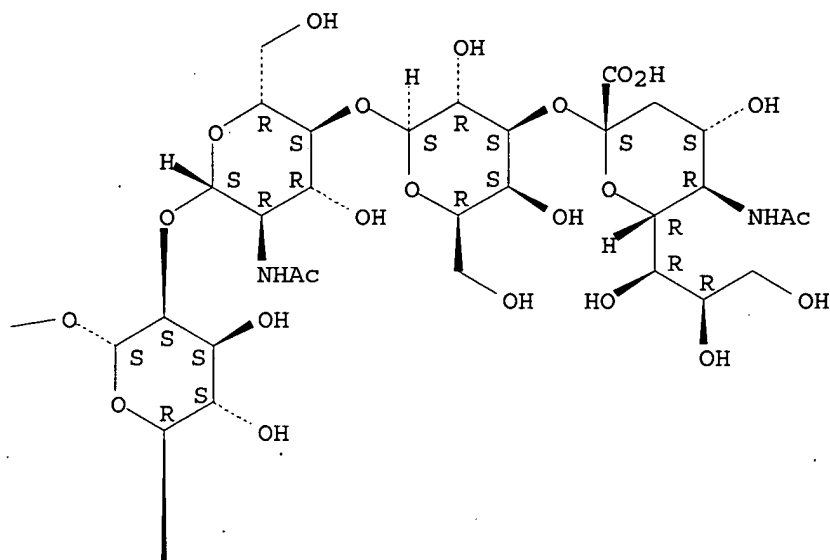
CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

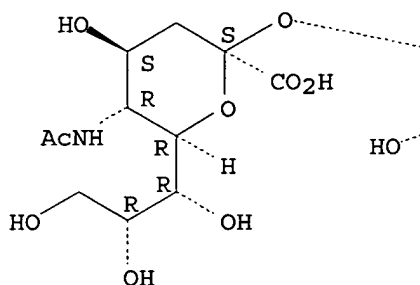
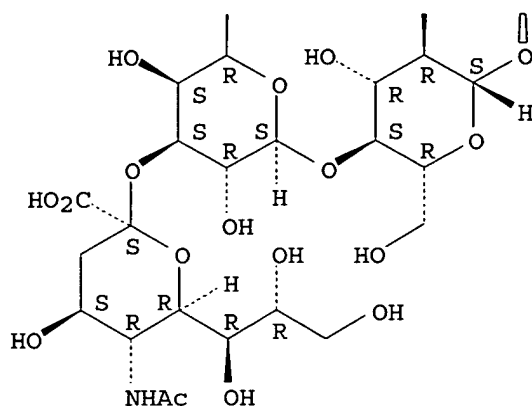
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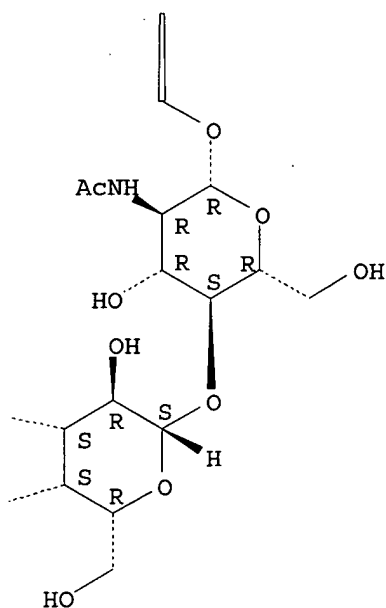
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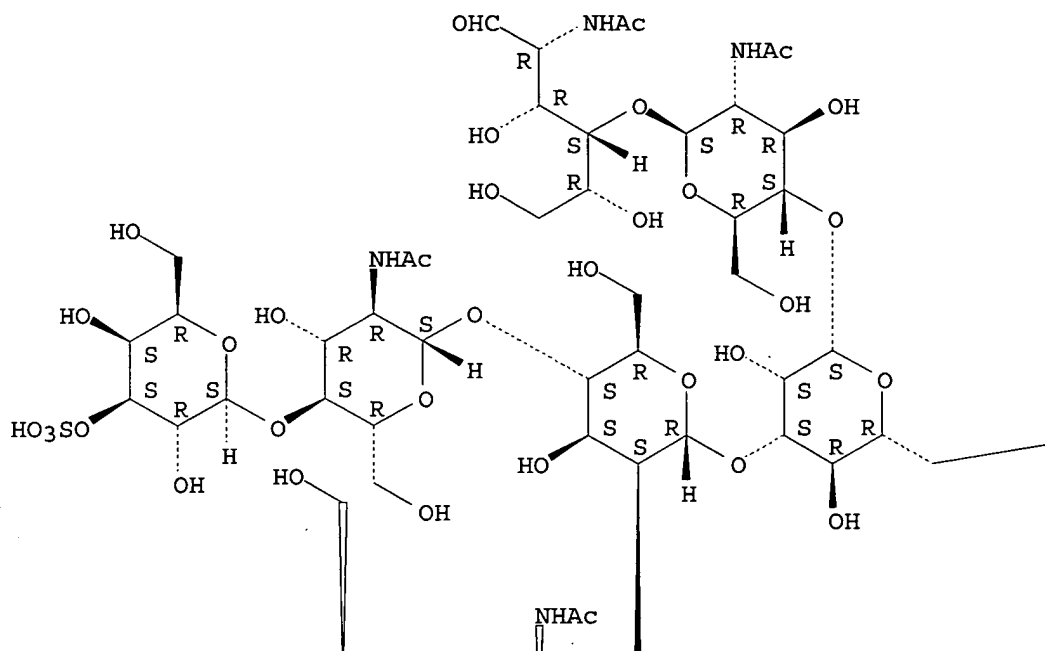
RN 214825-97-5 HCAPLUS

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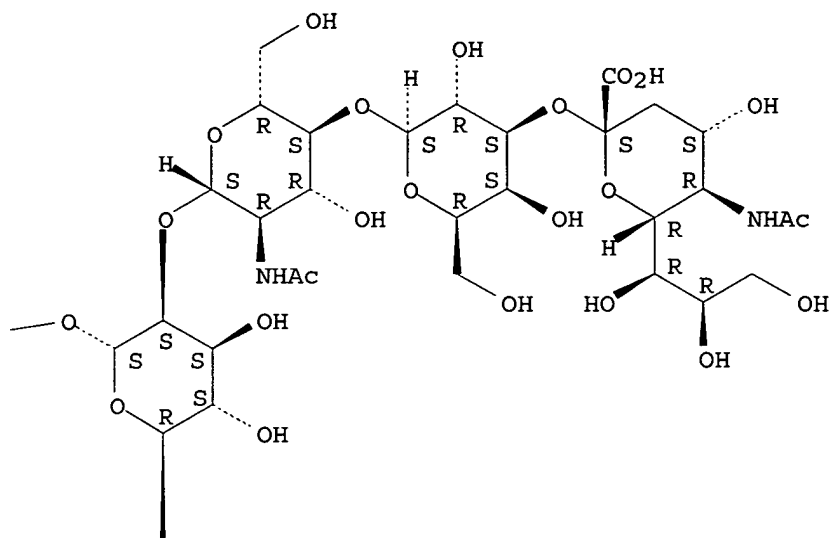
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Absolute stereochemistry.

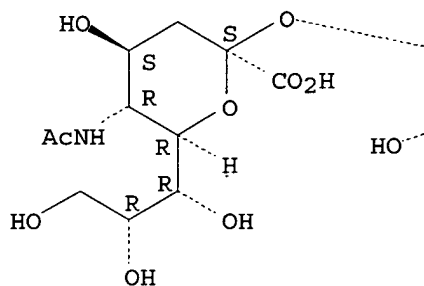
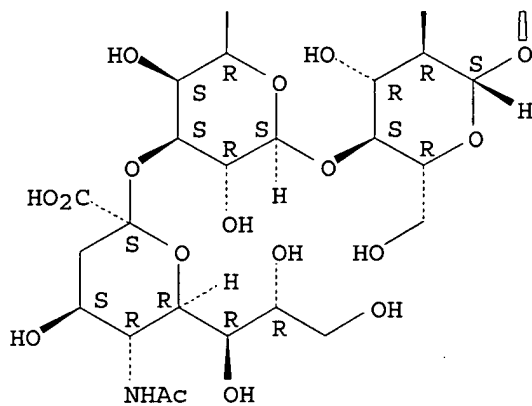
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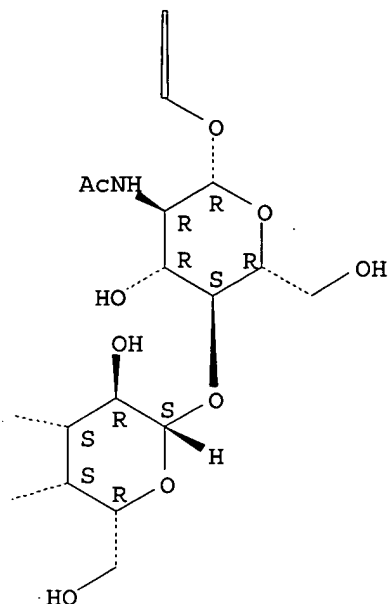
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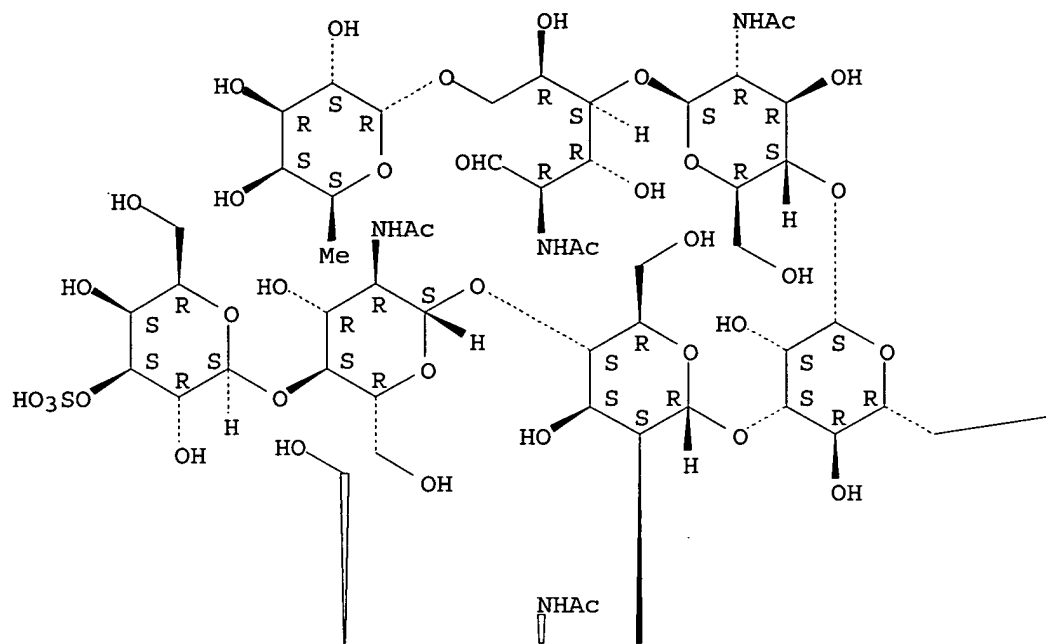


RN 214825-98-6 HCAPLUS

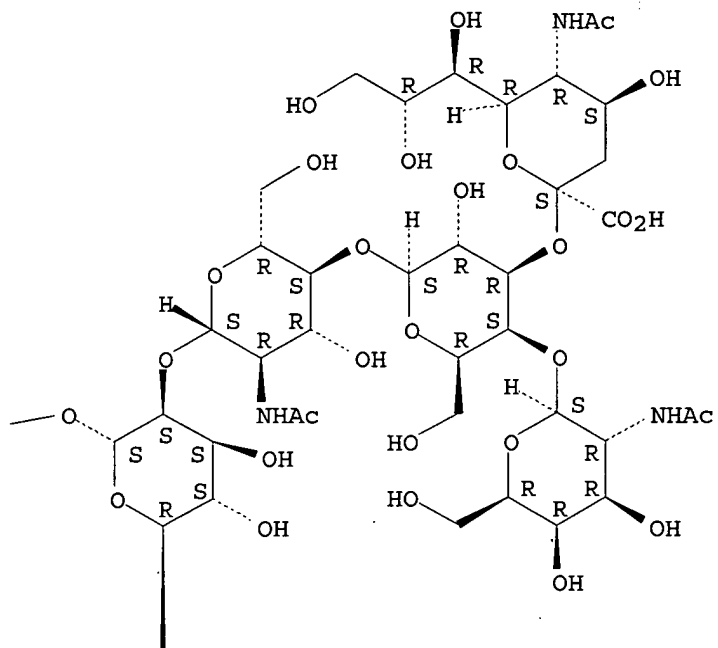
CN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

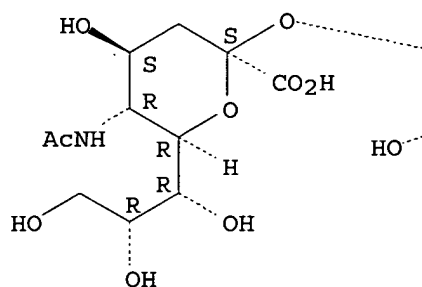
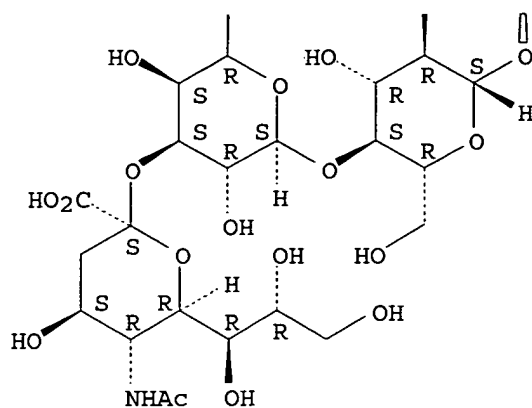
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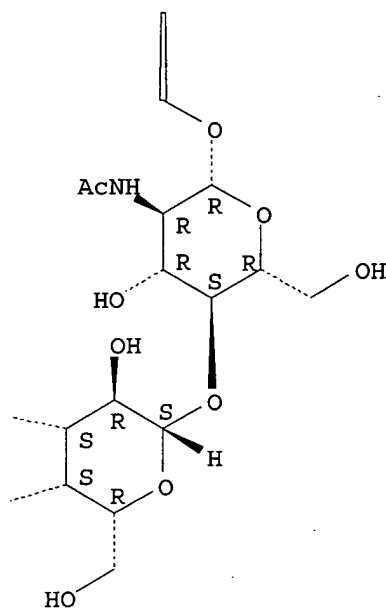
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RN 214825-99-7 HCAPLUS

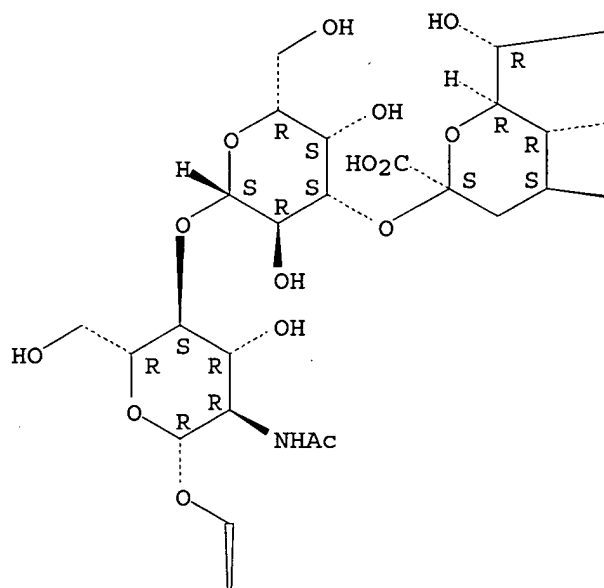
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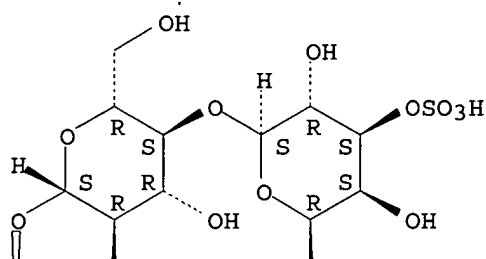
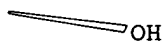
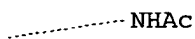
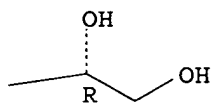
(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

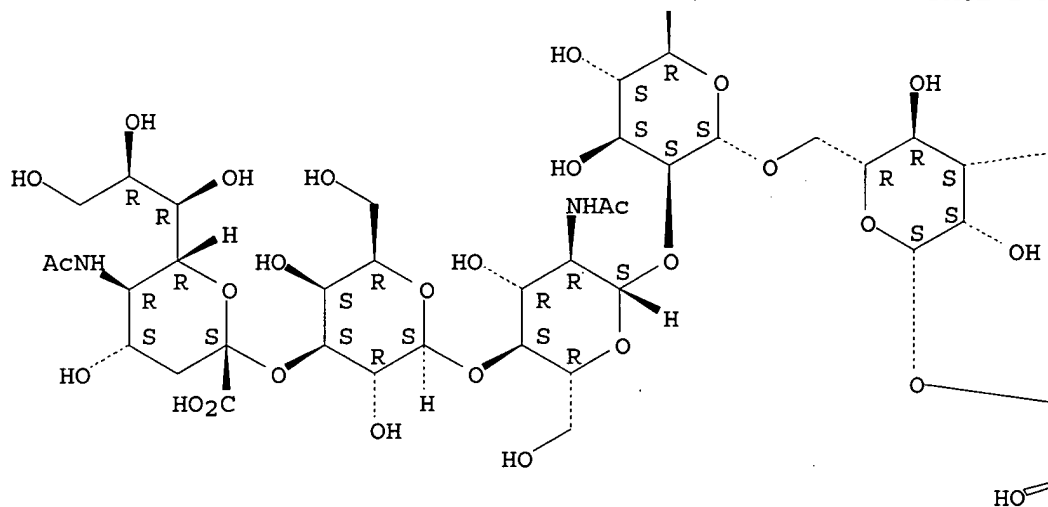
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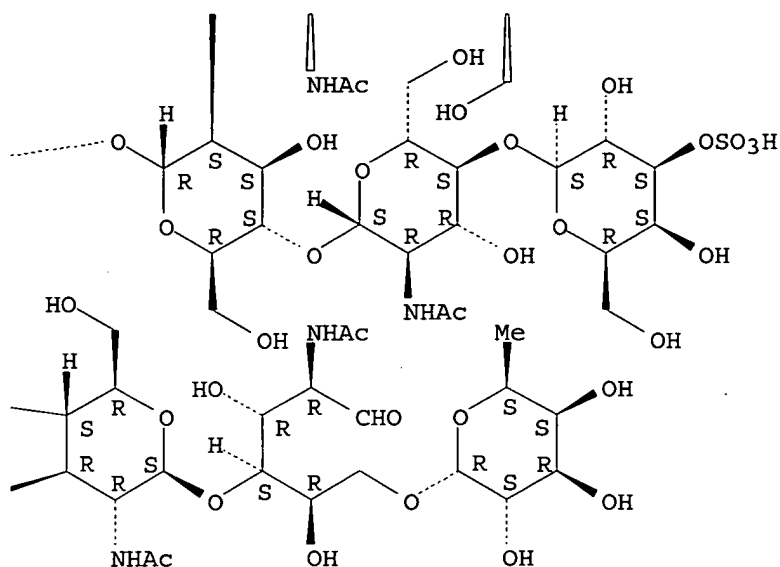
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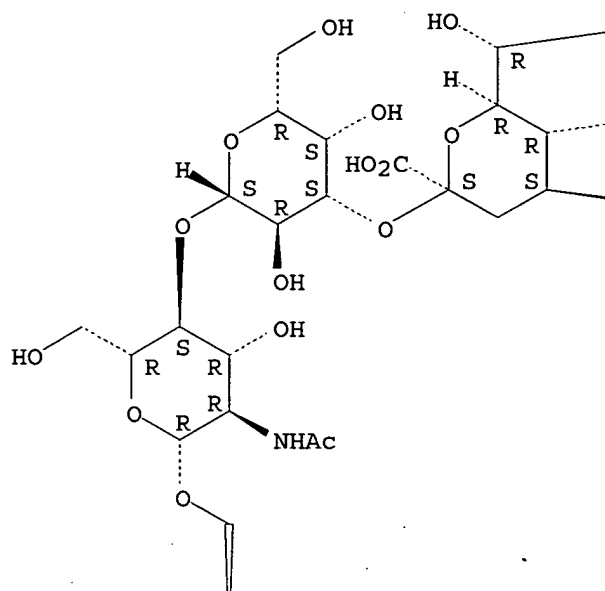


RN 214826-00-3 HCAPLUS

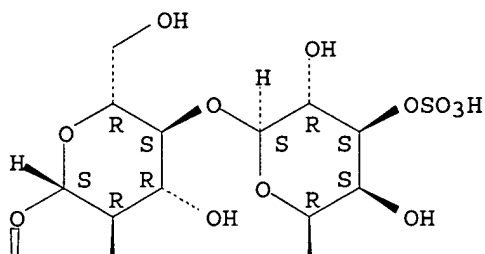
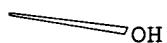
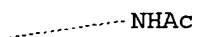
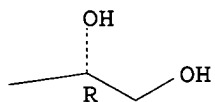
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Absolute stereochemistry.

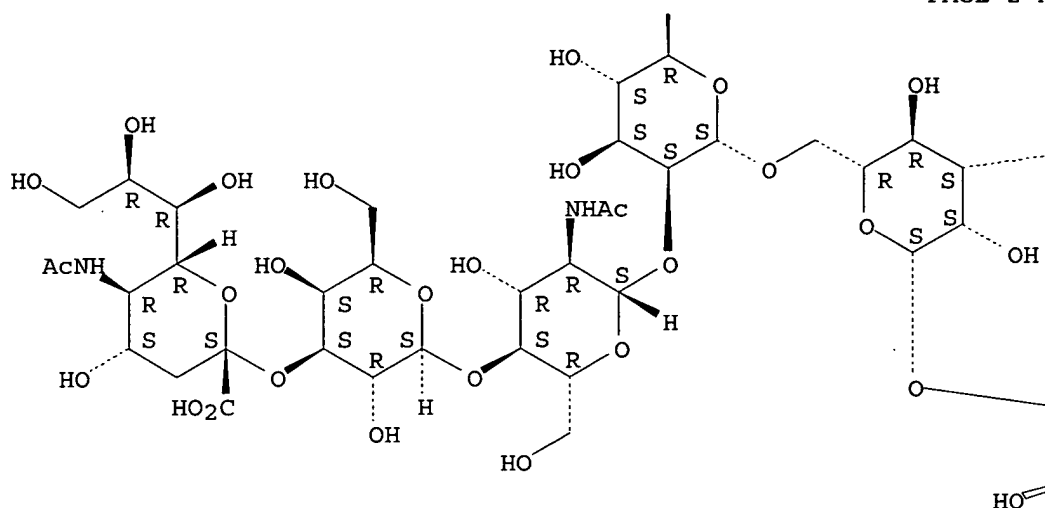
PAGE 1-A



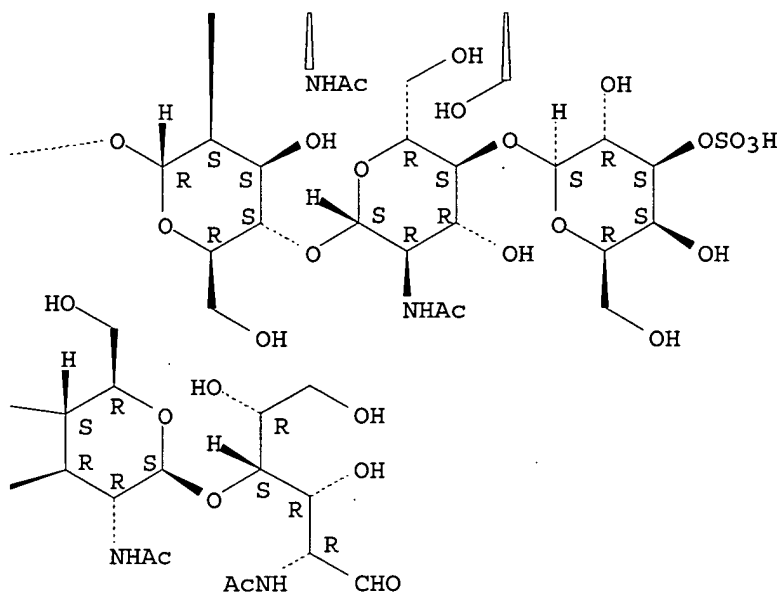
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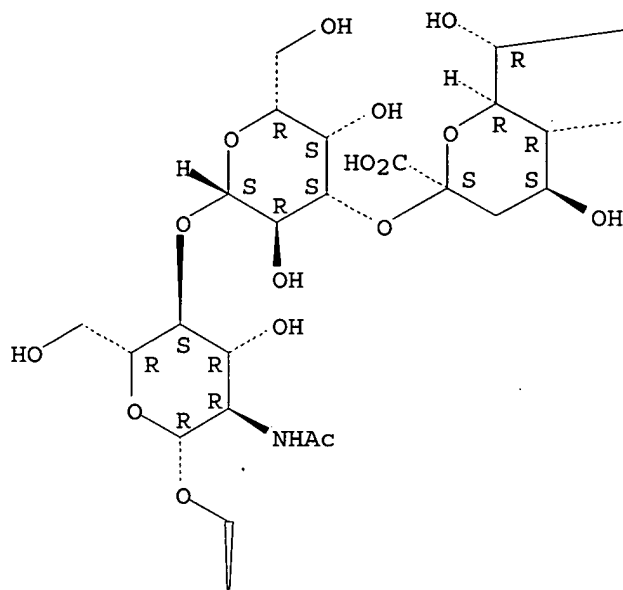
RN 214826-01-4 HCAPLUS

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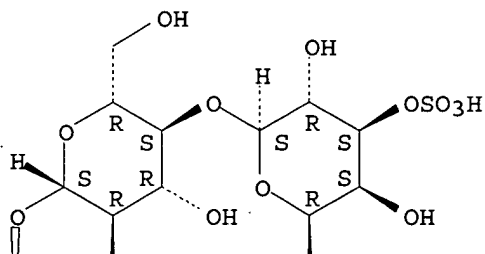
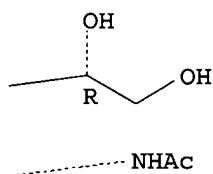
glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

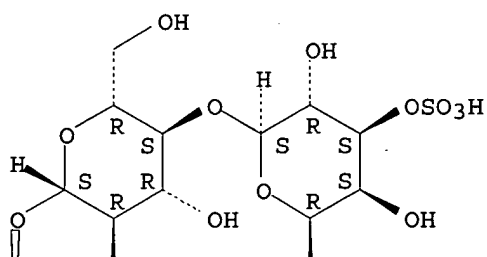
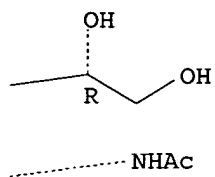
PAGE 1-A



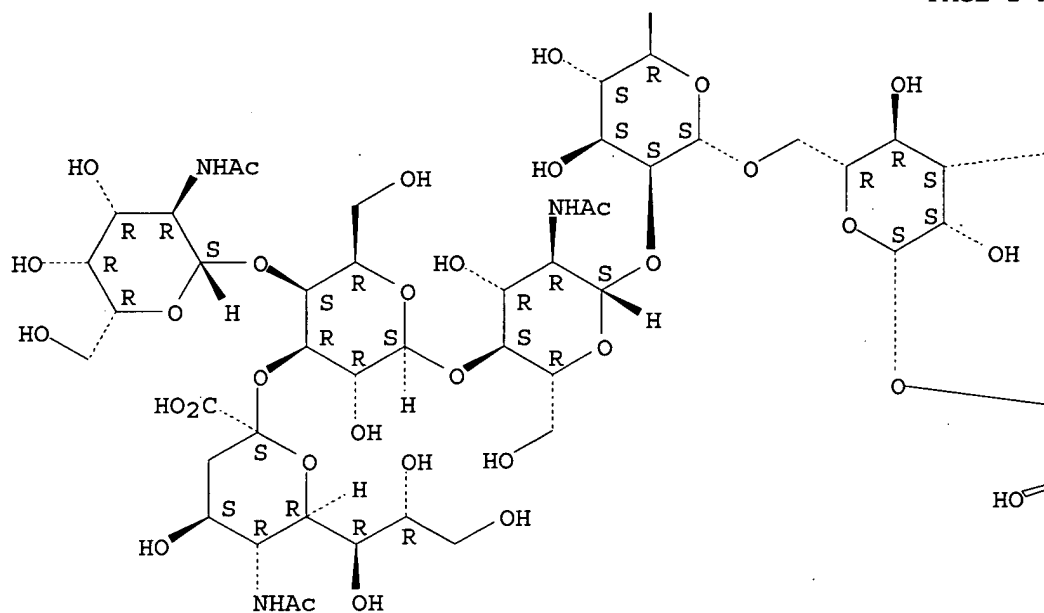
PAGE 1-B



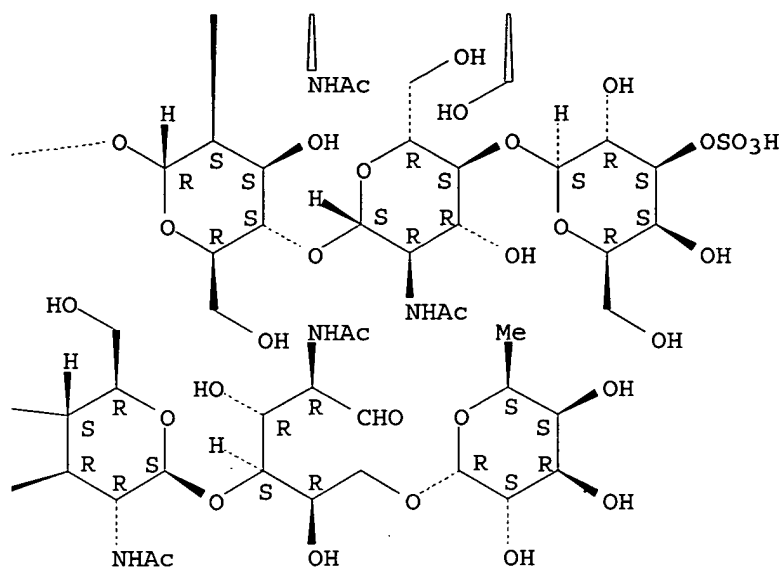
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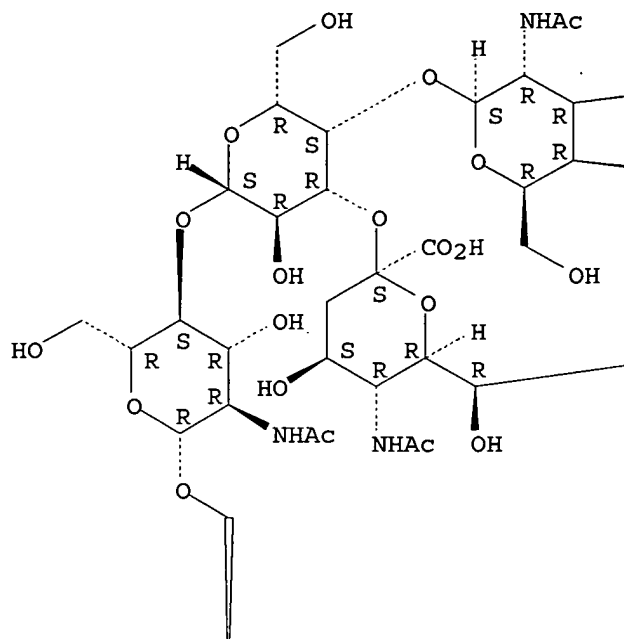
RN 214826-02-5 HCAPLUS

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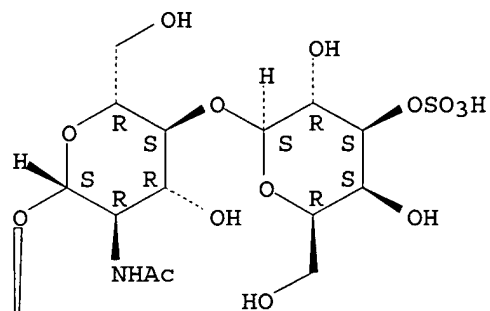
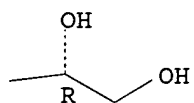
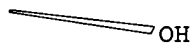
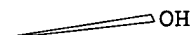
Absolute stereochemistry.



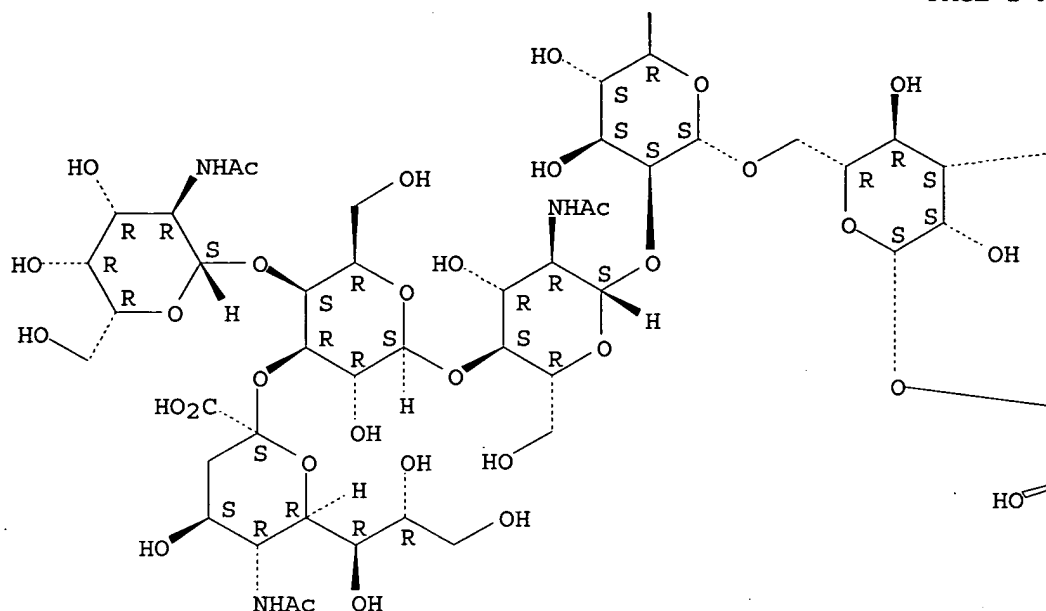
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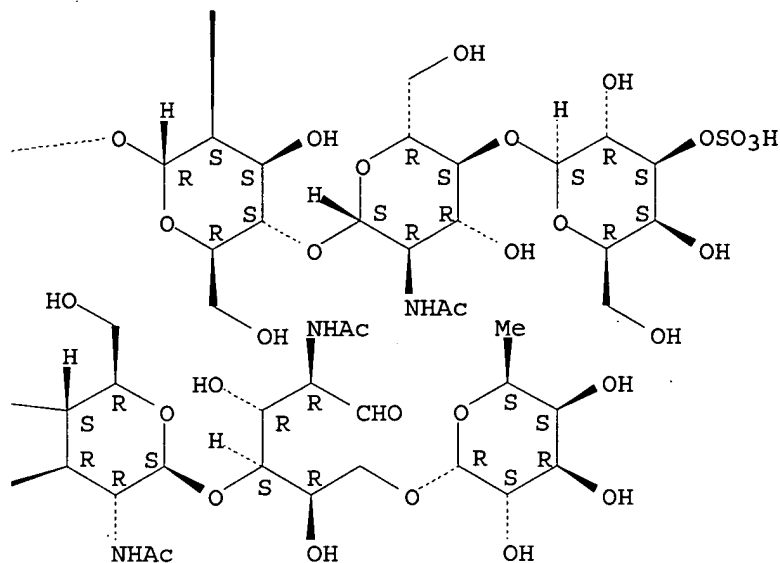
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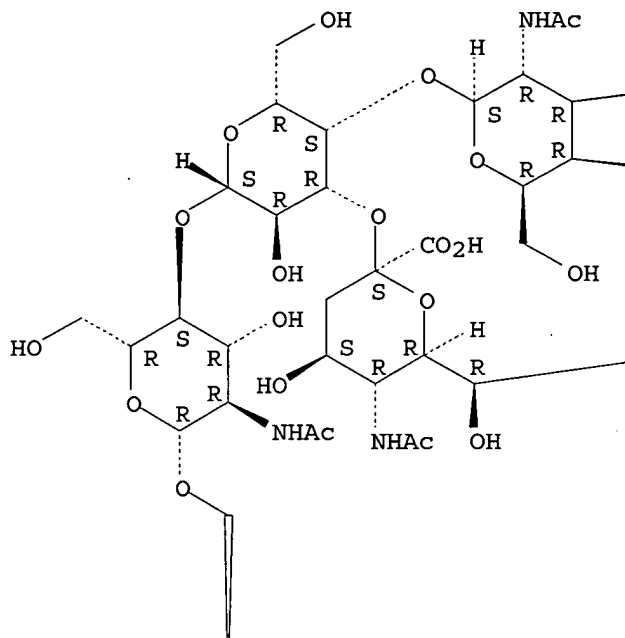
RN 214826-03-6 HCAPLUS

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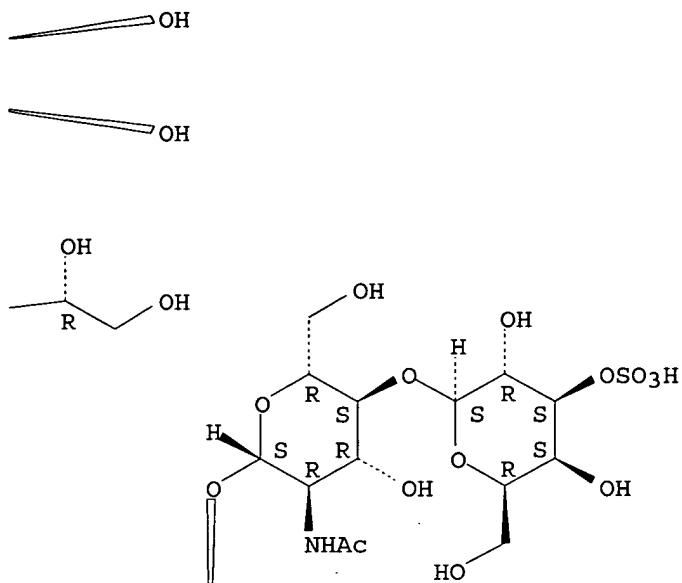
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Absolute stereochemistry.

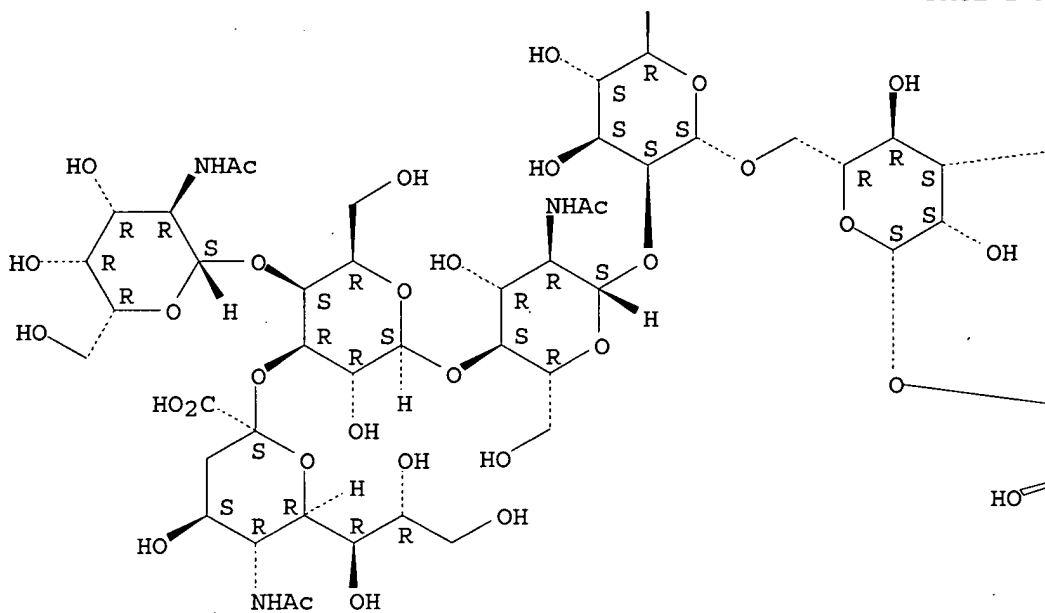
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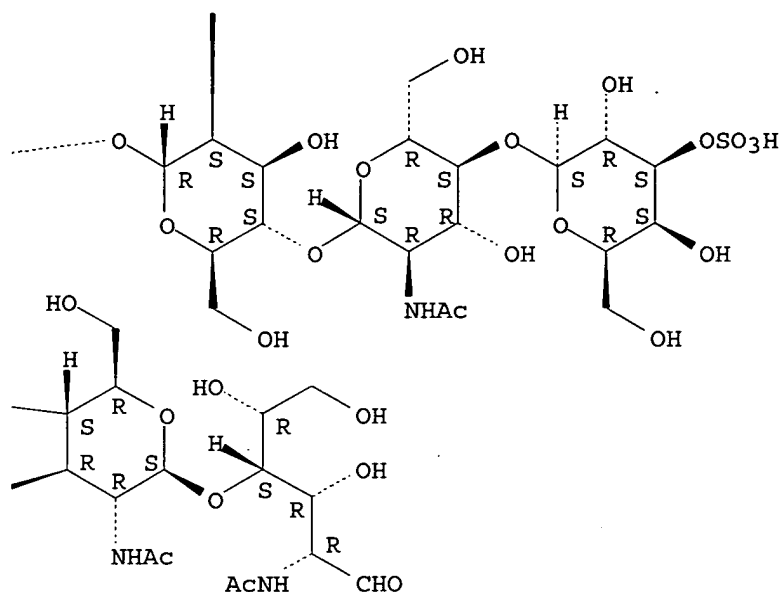
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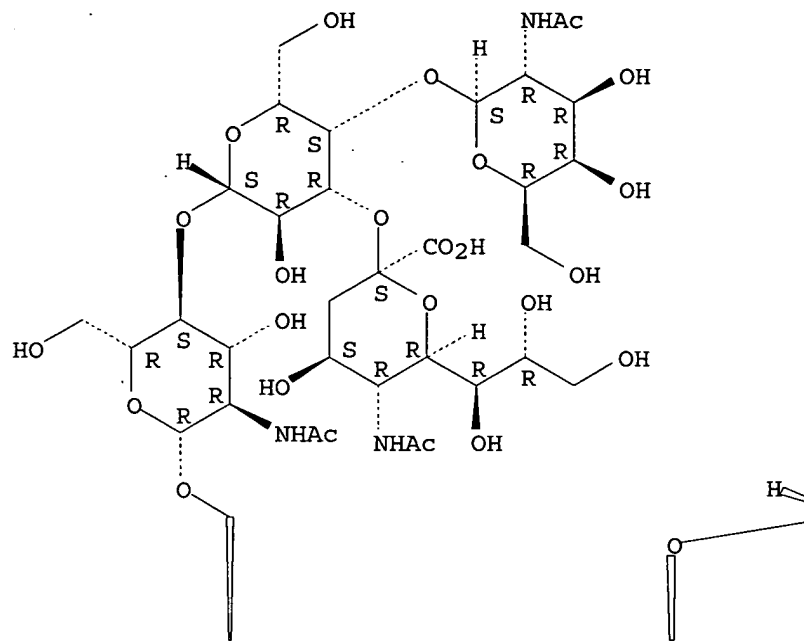


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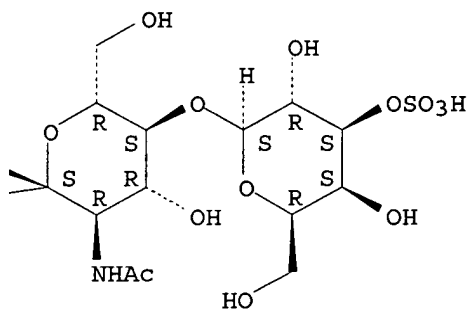
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Absolute stereochemistry.

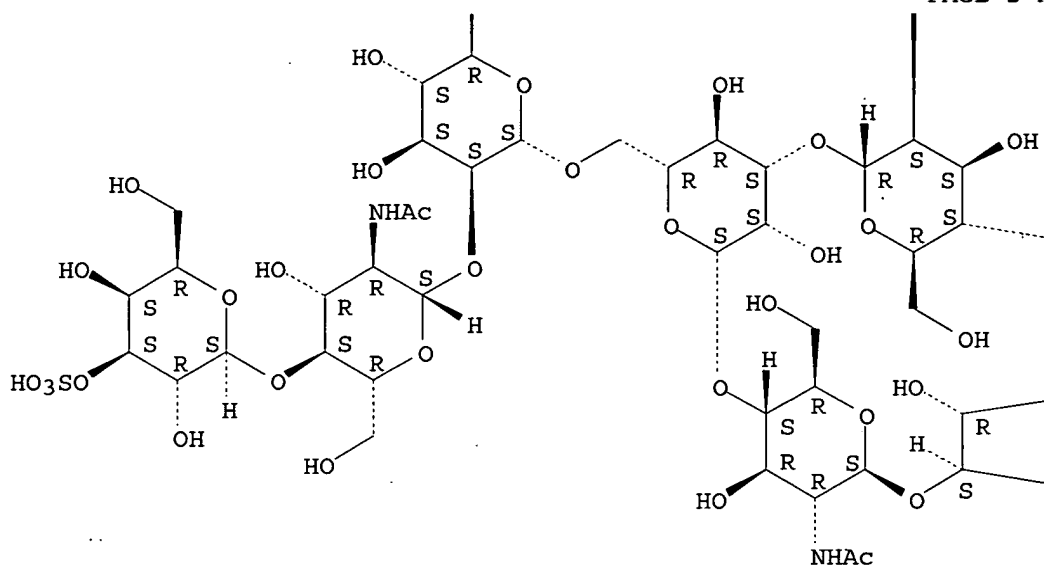
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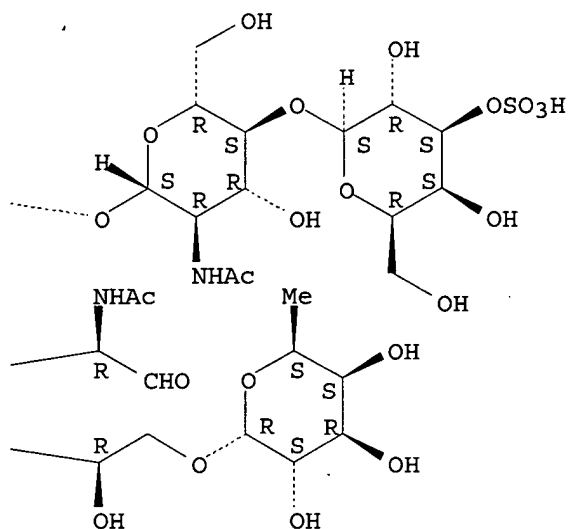
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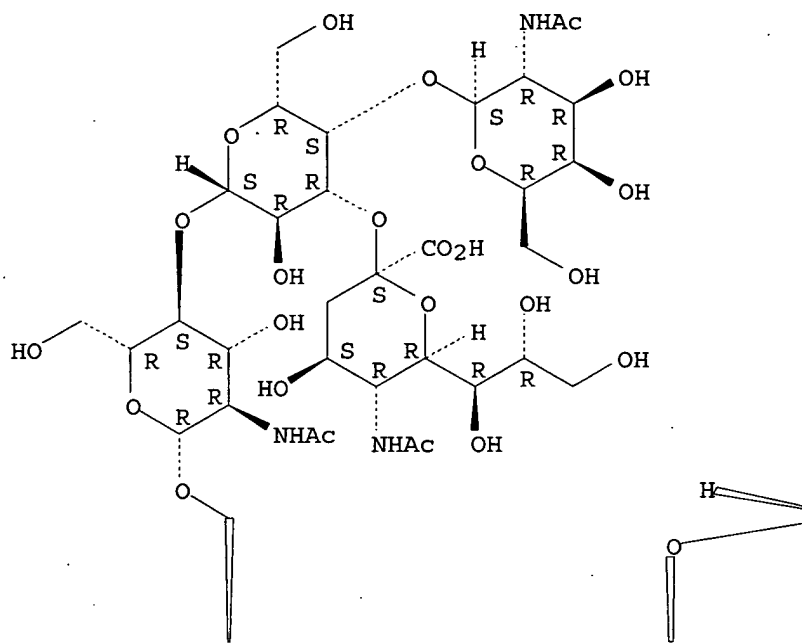
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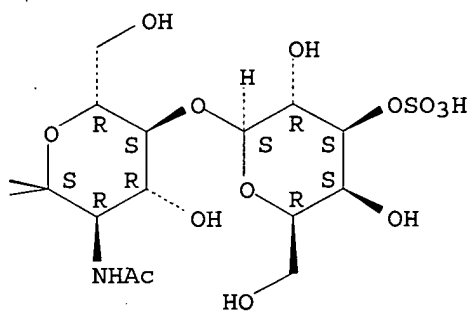
(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-  
(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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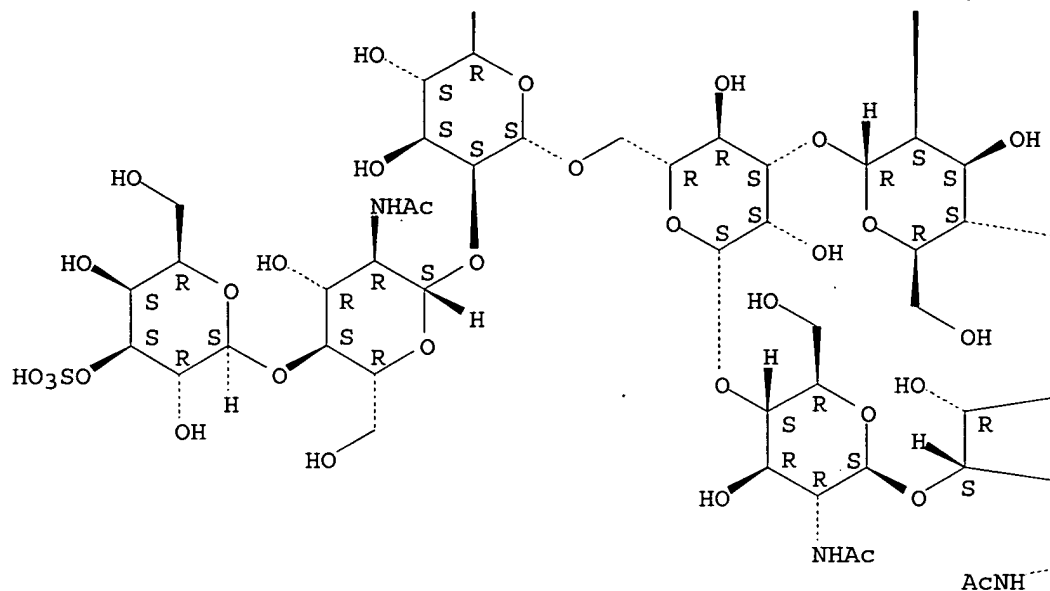


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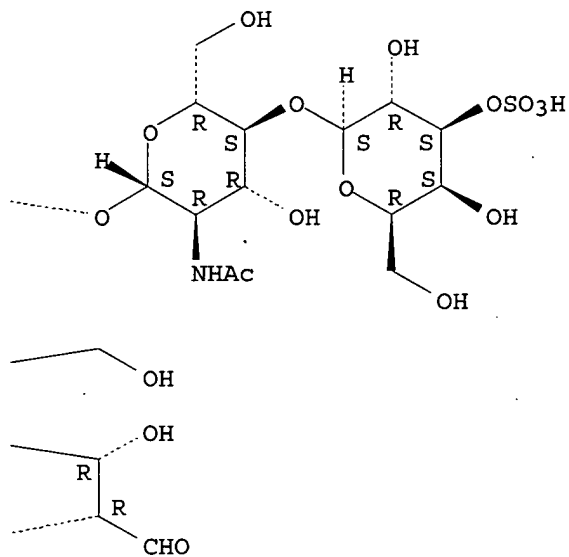




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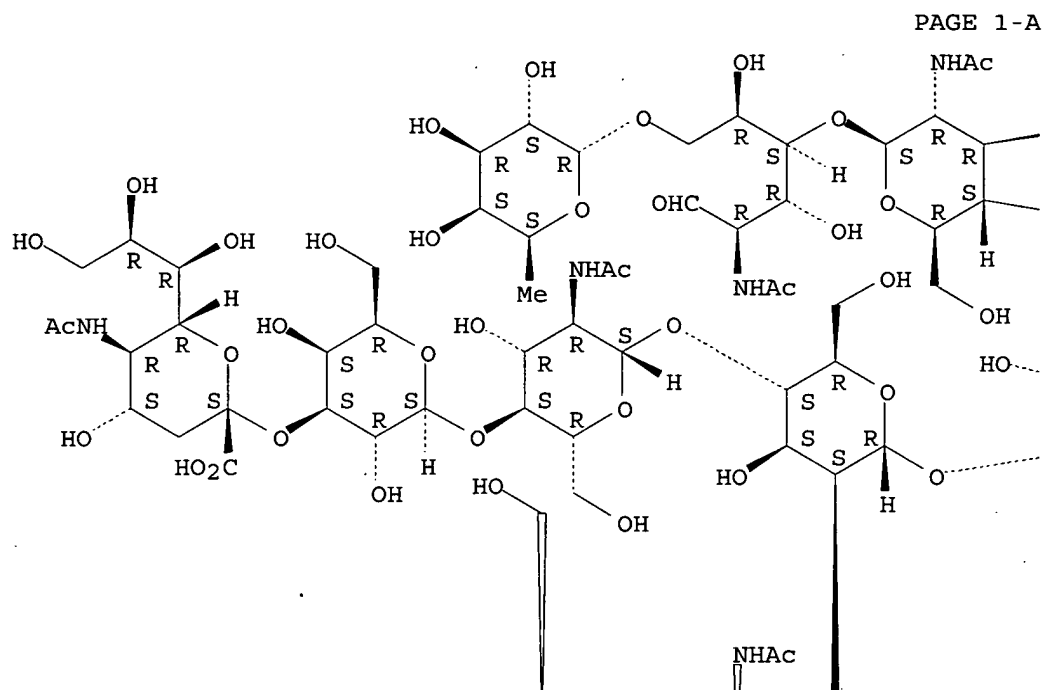


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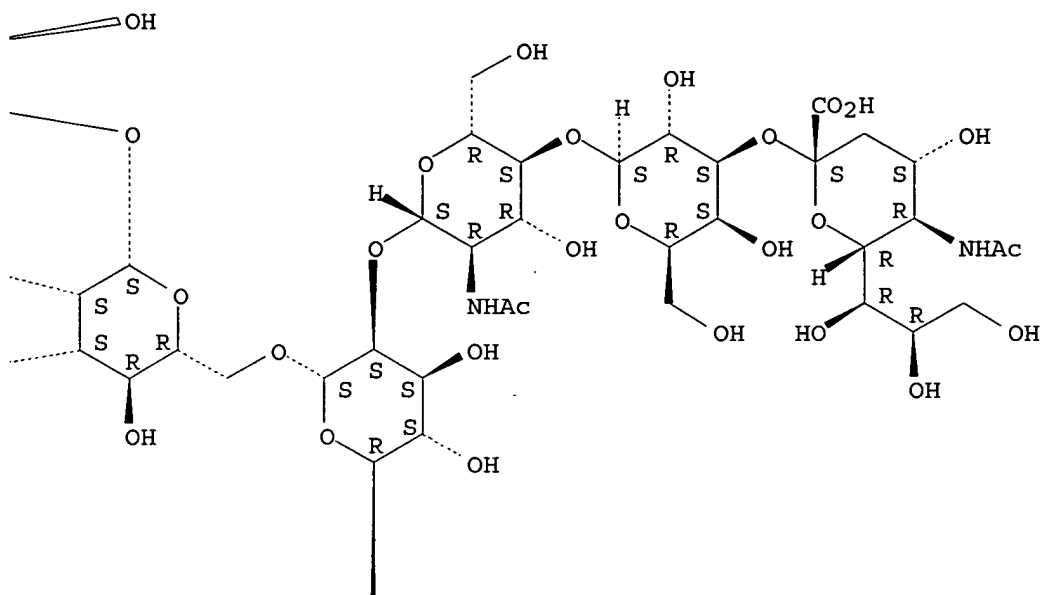
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galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

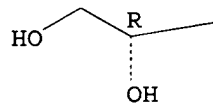
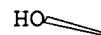
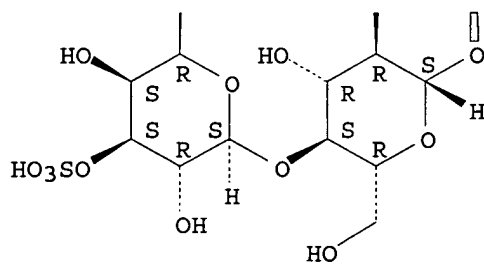
Absolute stereochemistry.



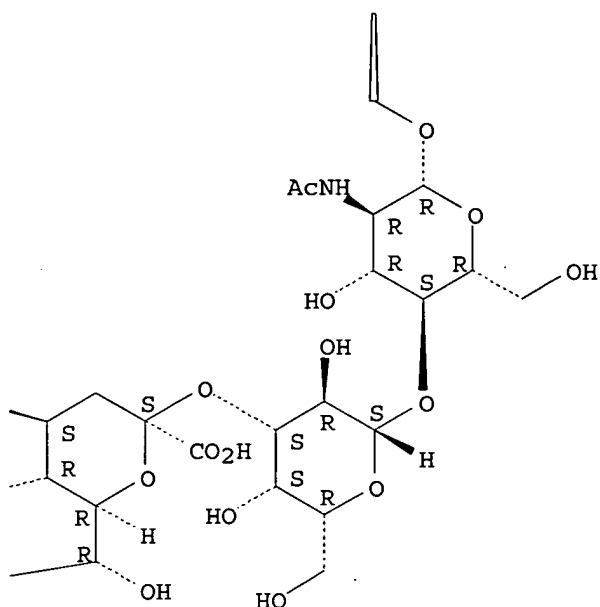
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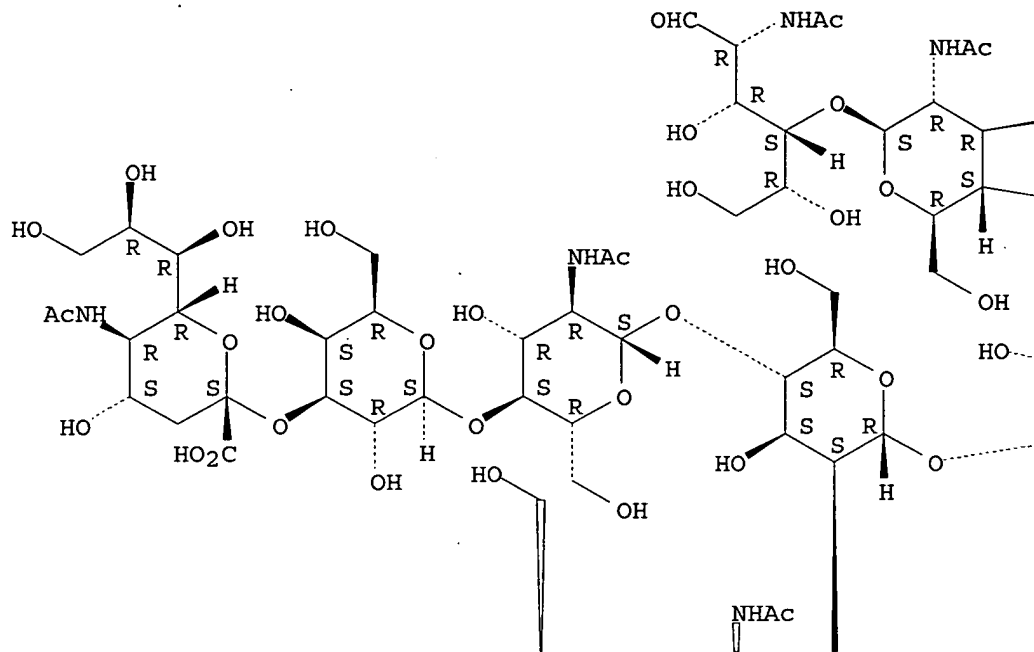


RN 214826-07-0 HCAPLUS

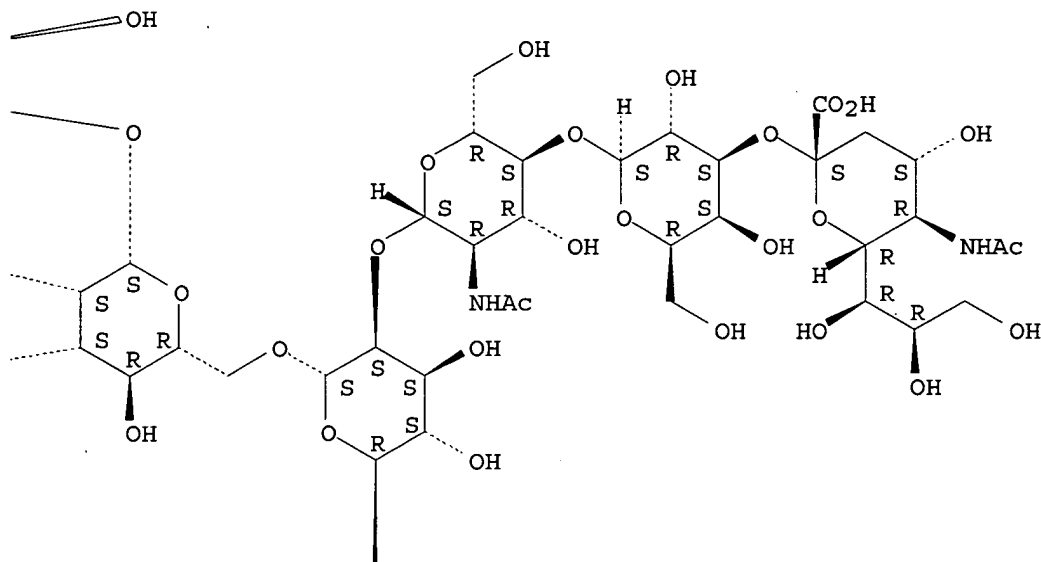
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Absolute stereochemistry.

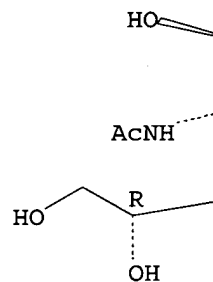
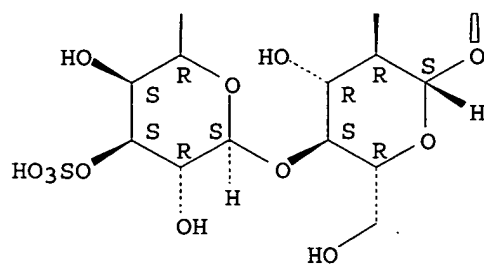
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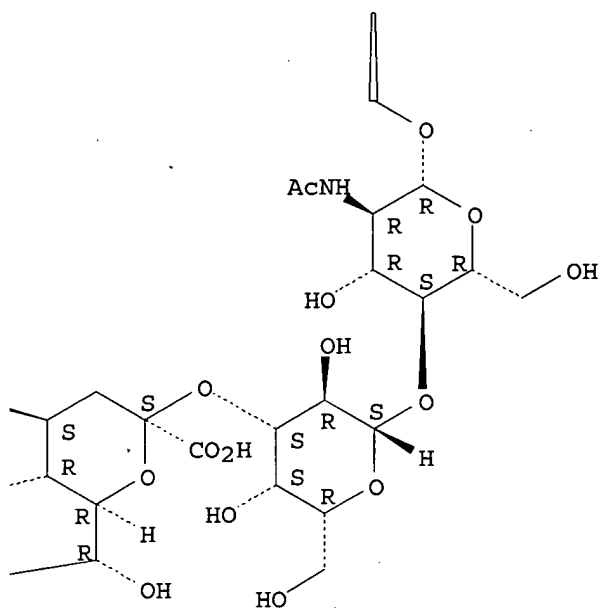
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REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 7 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 1998:454691 HCAPLUS  
DOCUMENT NUMBER: 129:203181

TITLE: Inhibition of L- and P-selectin by a rationally synthesized novel core 2-like branched structure containing GalNAc-Lewisx and Neu5Ac.alpha.2-3Gal.beta.1-3GalNAc sequences

AUTHOR(S): Jain, Rakesh K.; Piskorz, Conrad F.; Huang, Bao-Guo; Locke, Robert D.; Han, Hui-Ling; Koenig, Andrea; Varki, Ajit; Matta, Khushi L.

CORPORATE SOURCE: Department of Gynecologic Oncology, Roswell Park Cancer Institute, Buffalo, NY, 14263, USA

SOURCE: Glycobiology (1998), 8(7), 707-717  
CODEN: GLYCE3; ISSN: 0959-6658

PUBLISHER: Oxford University Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We synthesized Gal.beta.1-4(Fuc.alpha.1-3)GlcNAc.beta.1-6(Neu5Ac.alpha.2-3Gal.beta.1-3)-GalNAc.alpha.-OB, which was found to be 2- to 3-fold better than sialyl Lex for P and L selectin, resp. We also report the synthesis of an unusual structure GalNAc.beta.1-4(Fuc.alpha.1-3)GlcNAc.beta.1-OMe (GalNAc-Lewisx-O-Me glycoside), which also provided to be a better inhibitor of L- and P-selectin than sialyl Lewisx-OMe. Combining this with our knowledge of Core 2 branched structures, we have synthesized a mol. that is 5- to 6-fold better at inhibiting L- and P-selectin than sialyl Lewisx-OMe. By contrast to unbranched structures, substitution of a sulfate ester group for a sialic acid residue in such a mol. resulted in a considerable loss of inhibition ability. Thus, the combination of a sialic acid residue on the primary (.beta.1-3) arm, and a modified Lex unit on the branched (.beta.1-6) arm on an O-linked Core 2 structure generated a monovalent synthetic oligosaccharide inhibitor superior to SLex for both L- and P-selectin.

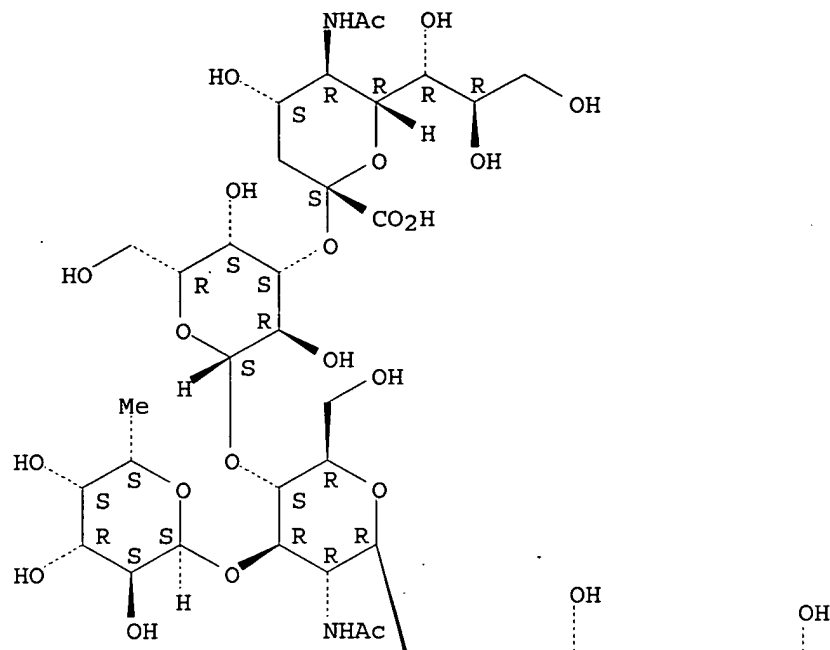
IT 212061-10-4  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(prepn. of branched sialylated GalNAc-contg. oligosaccharides as selectin inhibitors)

RN 212061-10-4 HCAPLUS

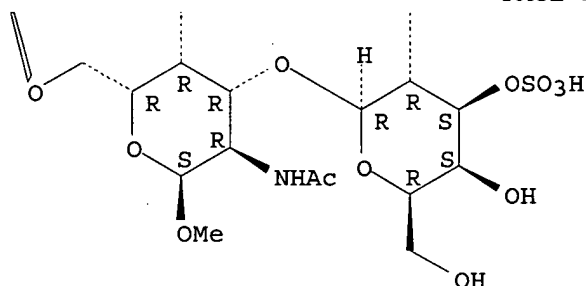
CN .alpha.-D-Galactopyranoside, methyl O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[O-6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)-O-[3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.3)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

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PAGE 2-A



REFERENCE COUNT: 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 8 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1995:479978 HCAPLUS

DOCUMENT NUMBER: 123:309441

TITLE: The major N-linked carbohydrate chains from human urokinase. The occurrence of 4-Q-sulfated, (.alpha.2-6)-sialylated or (.alpha.1-3)-fucosylated N-acetylgalactosamine(.beta.1-4)-N-acetylglucosamine elements

AUTHOR(S): Bergwerff, Aldert A.; Van Oostrum, Jan; Kamerling, Johannis P.; Vliegthart, Johannes F. G.

CORPORATE SOURCE: Department Bio-Organic Chemistry, Utrecht University, Neth.

SOURCE: European Journal of Biochemistry (1995), 228(3),



1009-19

CODEN: EJBCAI; ISSN: 0014-2956

PUBLISHER:

Springer

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB The primary structure of the major N-linked carbohydrate chains attached to Asn-302 of urinary-type plasminogen activator (urokinase) was detd. Urokinase was completely deglycosylated with peptide-N4-(N-acetyl-.beta.-glucosaminy)asparagine amidase F from Flavobacterium meningosepticum. The released oligosaccharides were sepd. from the remaining protein using gel-permeation chromatog. on Bio-Gel P-100, and then on Bio-Gel P-6. Fractionation of the oligosaccharides was achieved by a combination of FPLC anion-exchange chromatog. on Mono Q HR 5/5, and amine-adsorption HPLC on LiChrospher 100-NH2. Anal. by 1H NMR spectroscopy demonstrated that the collection of N-glycans comprised di-, tri-, and tri'-antennary structures. The glycans contained predominantly GalNAc.beta.1-4GlcNAc.beta. instead of Gal.beta.1-4GlcNAc.beta. elements. The GalNAc residue was mainly sulfated at O4, or to a lesser extent it bore N-acetylneuraminic acid at O6; alternatively the GlcNAc residue could be fucosylated at O3. The major component, which accounted for >30 mol/100 mol of the total oligosaccharide pool, consisted of an (.alpha.1-6)-fucosylated diantennary N-linked carbohydrate chain with (SO4-)-4GalNAc.beta.1-4GlcNAc.beta.1-2 antennae.

IT 130847-64-2 169566-86-3

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); OCCU (Occurrence)

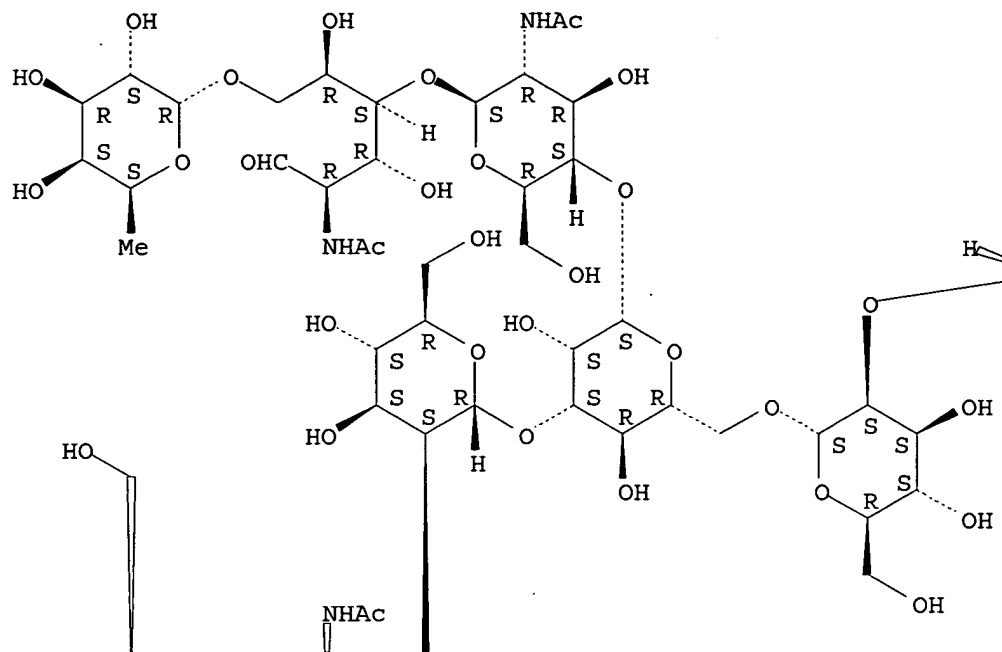
(structure of major N-linked oligosaccharides from human urokinase)

RN 130847-64-2 HCAPLUS

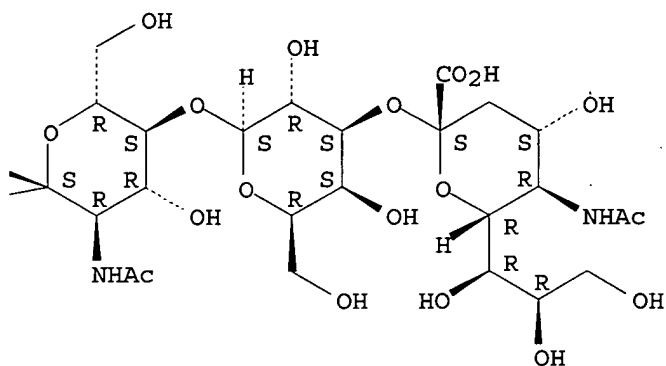
CN D-Glucose, O-2-(acetylamino)-2-deoxy-4-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

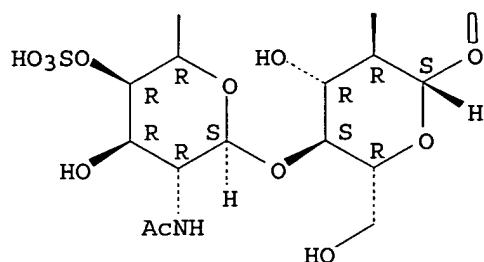
PAGE 1-A



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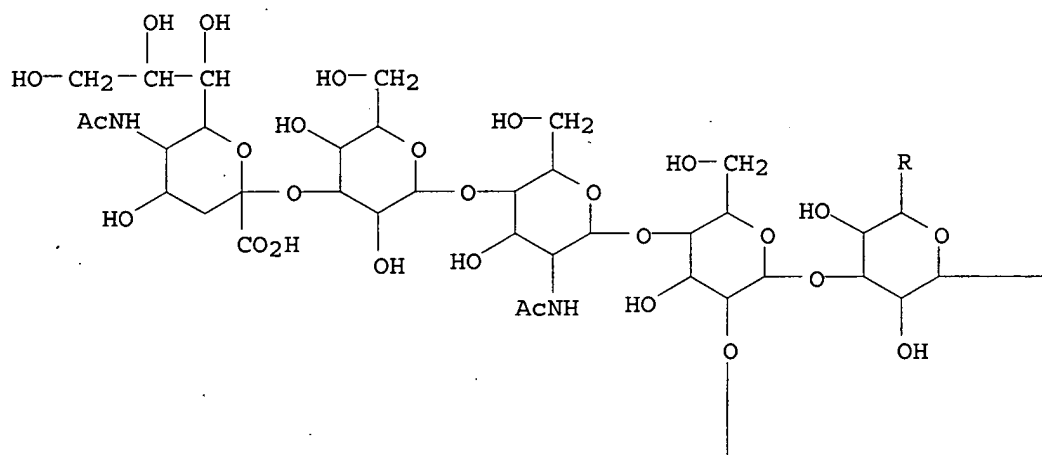
PAGE 2-A



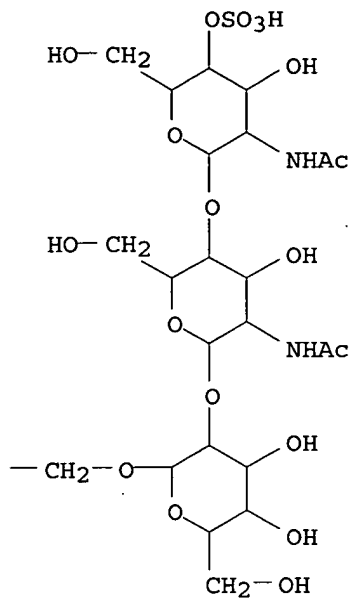
RN 169566-86-3 HCAPLUS

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(CA INDEX NAME)

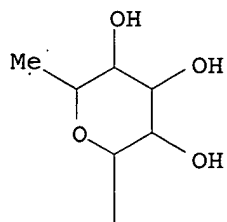
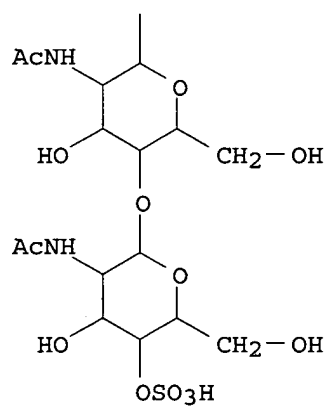
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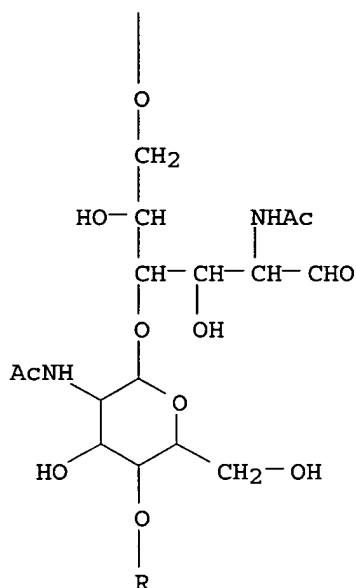
PAGE 1-B



PAGE 2-A



PAGE 3-A



L15 ANSWER 9 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1993:207858 HCAPLUS

DOCUMENT NUMBER: 118:207858

TITLE: The Asn-linked carbohydrate chains of human Tamm-Horsfall glycoprotein of one male. Novel sulfated and novel N-acetylgalactosamine-containing N-linked carbohydrate chains

AUTHOR(S): Hard, Karl; Van Zadelhoff, Guus; Moonen, Peter; Kamerling, Johannes P.; Vliegthart, Johannes F. G.  
 CORPORATE SOURCE: Dijvoet Cent., Utrecht Univ., Utrecht, 3508 TB, Neth.  
 SOURCE: European Journal of Biochemistry (1992), 209(3), 895-915

CODEN: EJBCAI; ISSN: 0014-2956

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Human Tamm-Horsfall glycoprotein has been purified from the urine of one male. The Asn-linked carbohydrate chains were enzymically released by peptide-N4-(N-acetyl-.beta.-glucosaminyl)asparagine amidase F, and sepd. from the remaining protein by gel-permeation chromatog. on Bio-Gel P-100. Fractionation of the intact (sulfated) sialylated carbohydrate chains was achieved by a combination of three liq.-chromatog. techniques, namely, anion-exchange FPLC on Q-Sepharose, amine-adsorption HPLC on Lichrospher-NH2, and high-pH anion-exchange chromatog. on CarboPac PA1. In total, more than 150 carbohydrate-contg. fractions were obtained, some of which still contained mixts. of oligosaccharides. The primary structure of 30 N-glycans, including 10 novel oligosaccharides, were detd. by one- and two-dimensional 1H NMR spectroscopy at 500 MHz or 600 MHz. The types of compds. identified range from nonfucosylated, monosialylated, diantennary to fucosylated, tetrasialylated, tetraantennary carbohydrate chains.

IT 130847-64-2 145288-68-2 145288-69-3  
 145311-38-2 147998-52-5

RL: BIOL (Biological study)

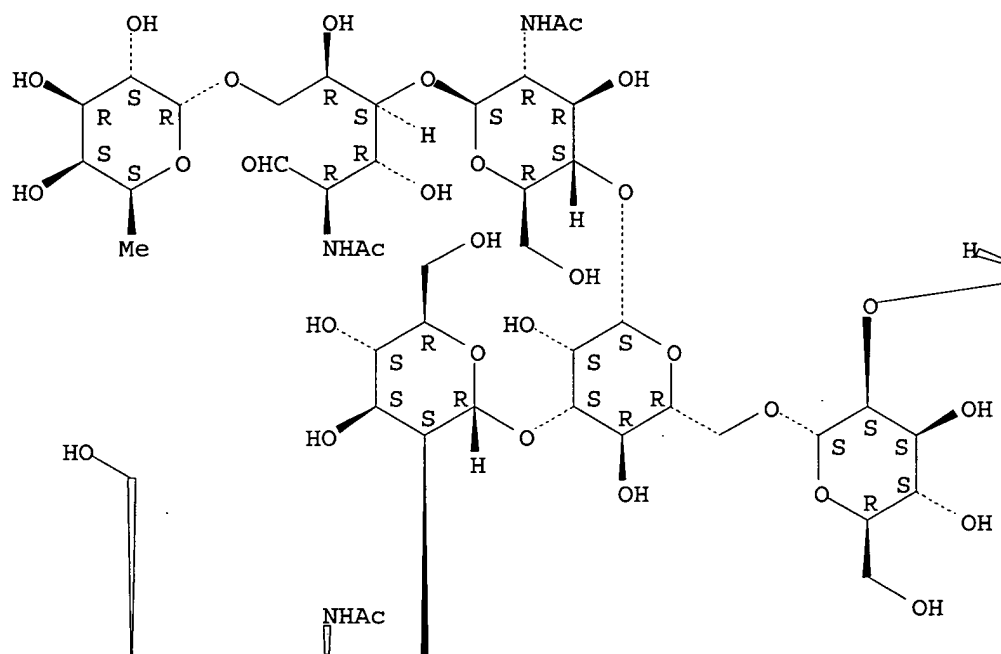
(of Tamm-Horsfall sialoglycoprotein, of human urine, structure of)

RN 130847-64-2 HCAPLUS

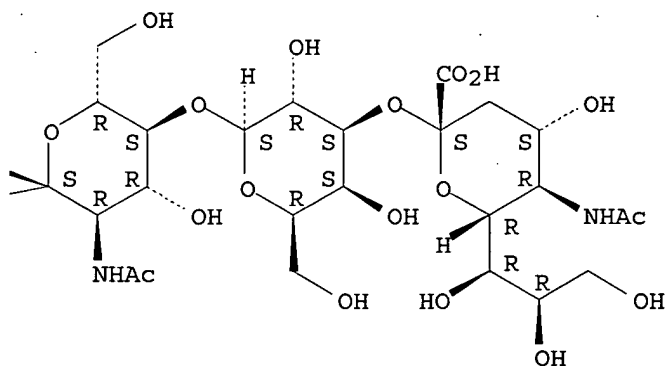
CN D-Glucose, O-2-(acetylamino)-2-deoxy-4-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

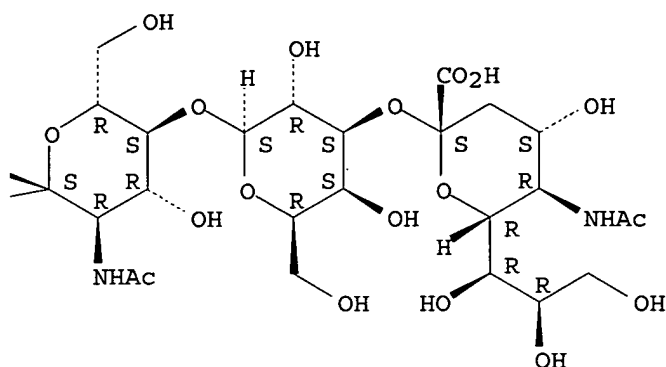
PAGE 1-A



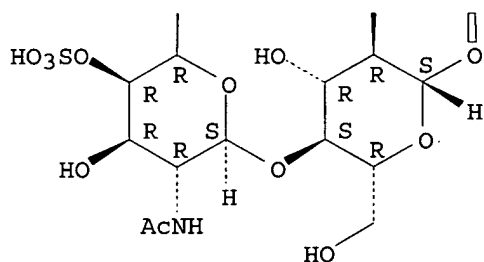
PAGE 1-B



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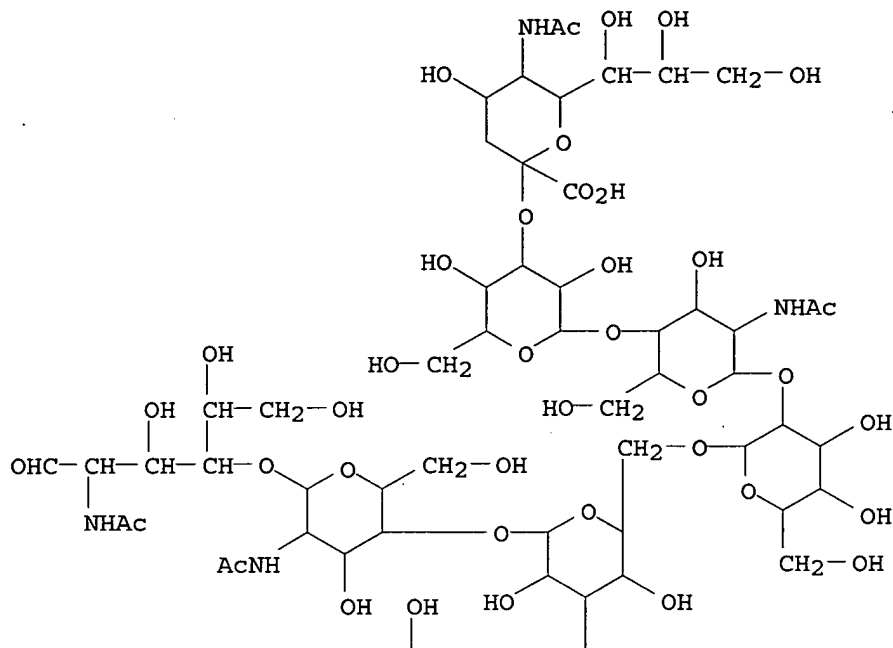
PAGE 2-A



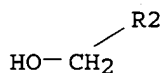
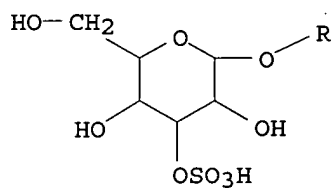
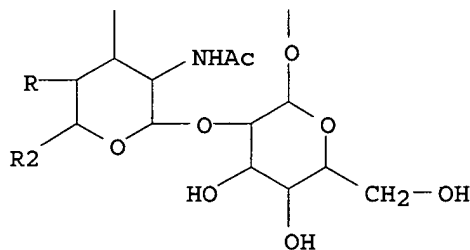
RN 145288-68-2 HCAPLUS

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(CA INDEX NAME)

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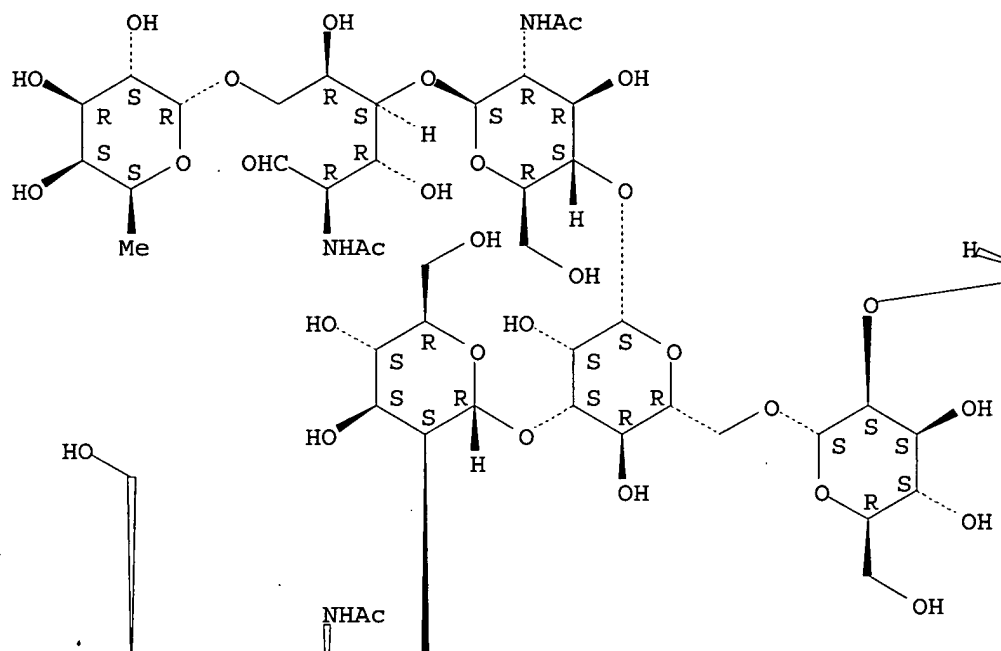
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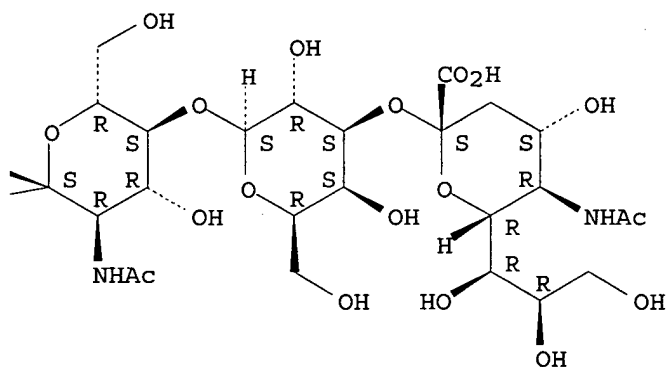
glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

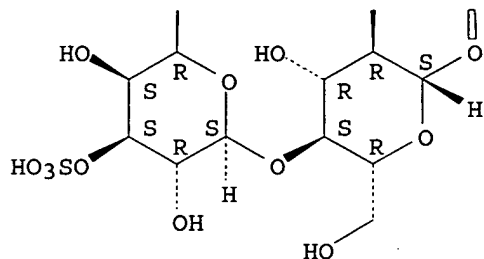
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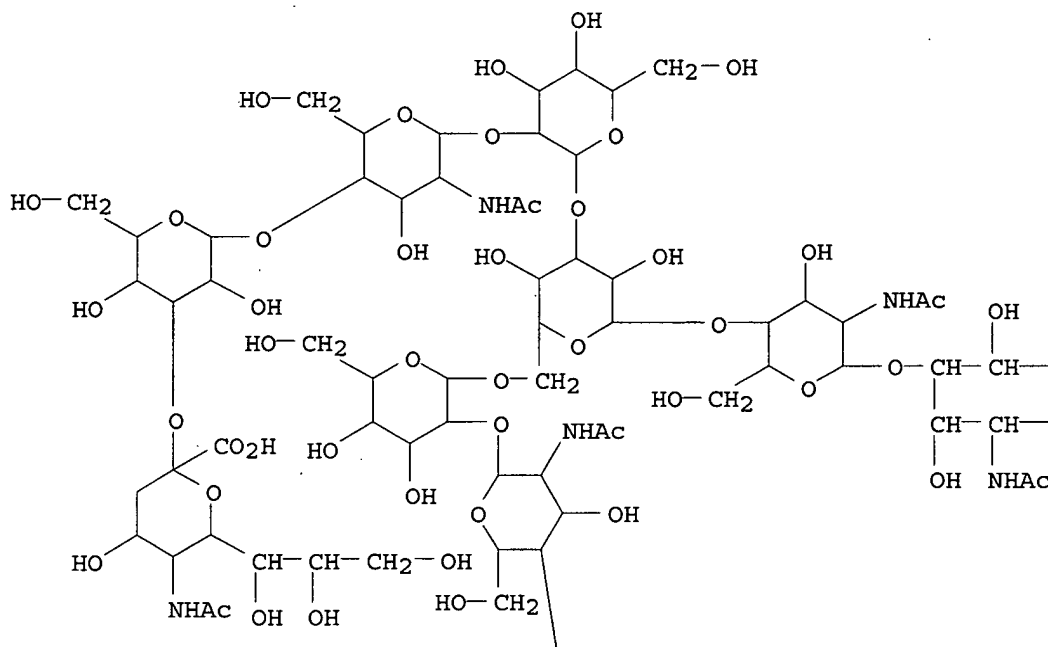
PAGE 2-A



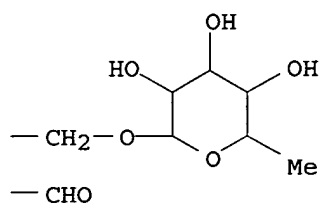
RN 145311-38-2 HCAPLUS

CN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

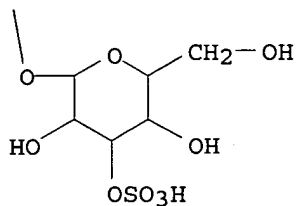
PAGE 1-A



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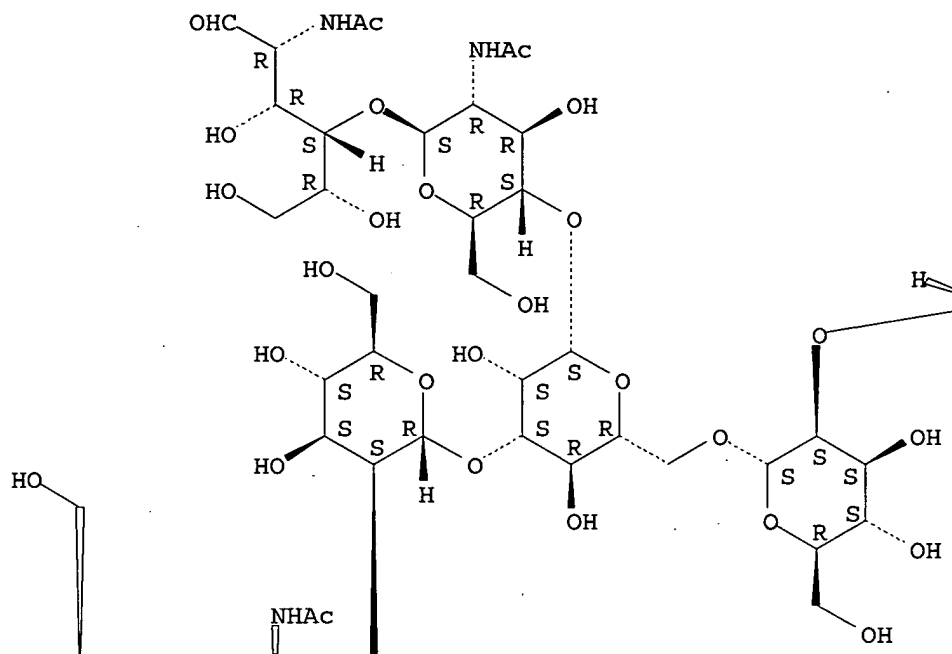
PAGE 2-A



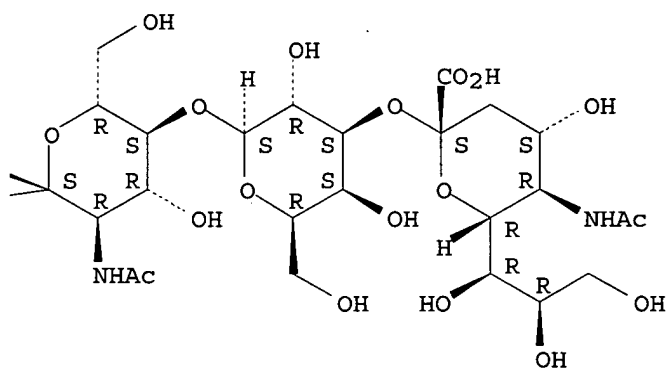
RN 147998-52-5 HCAPLUS  
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Absolute stereochemistry.

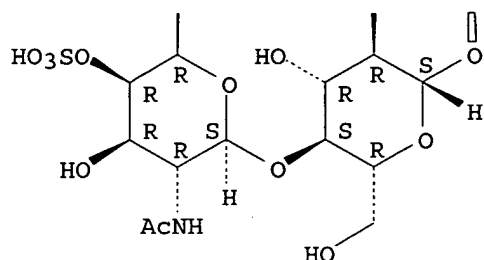
PAGE 1-A



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PAGE 2-A



L15 ANSWER 10 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1992:408362 HCAPLUS

DOCUMENT NUMBER: 117:8362

TITLE: Preparation of gangliosides and human immunodeficiency virus inhibitors containing them

INVENTOR(S): Achinami, Kazuo; Hoshino, Hiroo; Suzuki, Yasuo; Nakajima, Katsuyuki

PATENT ASSIGNEE(S): Nippon Kotai Kenkyusho K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, '6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03246297	A2	19911101	JP 1990-41926	19900222
PRIORITY APPLN. INFO.:			JP 1990-41926	19900222

OTHER SOURCE(S): MARPAT 117:8362

AB Gangliosides I (R1 = H, SO<sub>3</sub>H; R1 may differ with each other, but .gtoreq.12 R1 = SO<sub>3</sub>H; R2, R3 = H, SO<sub>3</sub>H, Q; R4 = fatty acid residue), useful for treatment of AIDS, are prepd. Treatment of 15.6 mg GM1a (extd. from bovine brain) with SO<sub>3</sub>-Me<sub>3</sub>N complex in DMF at 50-60.degree. for 20 h gave 24 mg GM1a sulfate Me<sub>3</sub>N salt, which was treated with CF<sub>3</sub>CO<sub>2</sub>H in CH<sub>2</sub>Cl<sub>2</sub> for 1 h to afford 34% GM1a hexadecasulfate (II). II at 10 .mu.g/mL completely inhibited infection of MT-4 cell by human immunodeficiency virus and at 100 .mu.g/mL did not affect activated partial thromboplastin time.

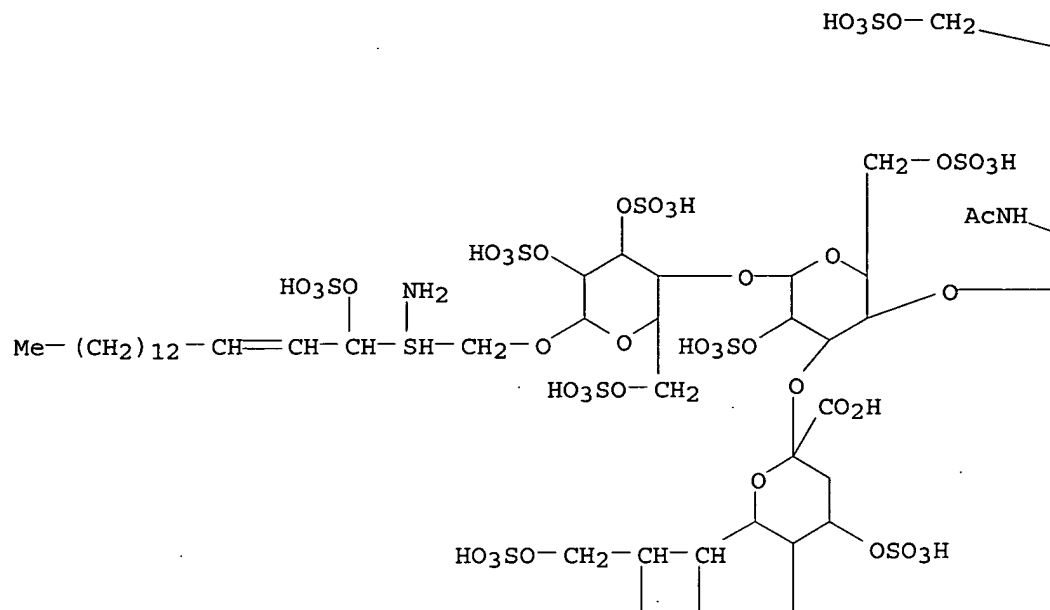
IT 140908-47-0DP, N-acyl deriv. 140908-49-2DP, N-acyl deriv.

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of, as human immunodeficiency virus inhibitor)

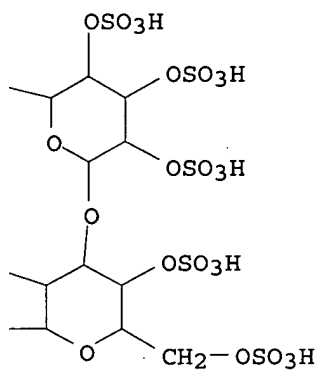
RN 140908-47-0 HCAPLUS

CN .beta.-D-Glucopyranoside, 2-amino-3-(sulfooxy)-4-octadecenyl  
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2,3,4,6-tetra-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.3)-2-  
(acetyl-amino)-2-deoxy-4,6-di-O-sulfo-.beta.-D-galactopyranosyl-  
(1.fwdarw.4)]-O-2,6-di-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-,  
2,3,6-tris(hydrogen sulfate), [R-[R\*,S\*-(E)]]- (9CI) (CA INDEX NAME)

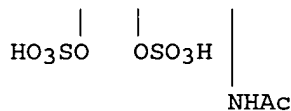
PAGE 1-A



PAGE 1-B



PAGE 2-A



RN 140908-49-2 HCAPLUS  
 CN .beta.-D-Glucopyranoside, 2-amino-3-(sulfooxy)-4-octadecenyl  
 O-(N-acetyl-4,7,8,9-tetra-O-sulfo-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-[O-  
 2,3,4,6-tetra-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.3)-2-

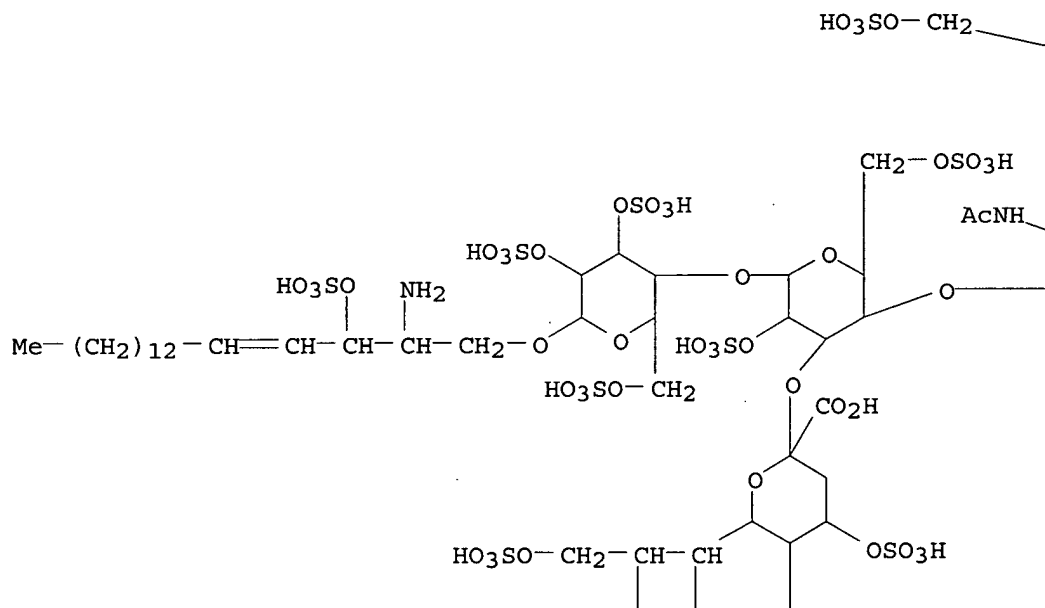
(acetylamino)-2-deoxy-4,6-di-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)]-O-2,6-di-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-, 2,3,6-tris(hydrogen sulfate), [R-(R\*,S\*)]-, compd. with N,N-dimethylmethanamine (9CI) (CA INDEX NAME)

CM 1

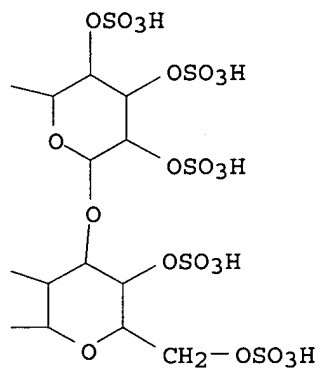
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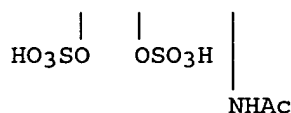
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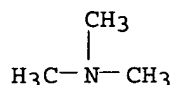
PAGE 2-A



CM 2

CRN 75-50-3

CMF C3 H9 N



L15 ANSWER 11 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1991:632653 HCAPLUS

DOCUMENT NUMBER: 115:232653

TITLE: Fast-atom-bombardment mass spectrometry of sulfated oligosaccharides from ovine lutropin

AUTHOR(S): Dell, Anne; Morris, Howard R.; Greer, Fiona; Redfern, Joanne M.; Rogers, Mark E.; Weisshaar, Gerhard; Hiyama, Jun; Renwick, Alistair G. C.

CORPORATE SOURCE: Dep. Biochem., Imp. Coll., London, UK

SOURCE: Carbohydrate Research (1991), 209, 33-50

CODEN: CRBRAT; ISSN: 0008-6215

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The pos.- and neg.-ion fast-atom-bombardment (f.a.b.) mass spectra and the fragmentation of sulfated oligosaccharides derived from ovine lutropin are described. Neg.-ion f.a.b.-m.s. of methylated derivs. offers a sensitive and rapid method for screening glycans for sulfation, for defining the location of sulfated residues, and for sequencing sulfated branches. Pos.-ion f.a.b.-m.s. gives complementary data on non-sulfated branches in both complex and hybrid-type sulfated structures.

IT 132497-51-9DP, methylated

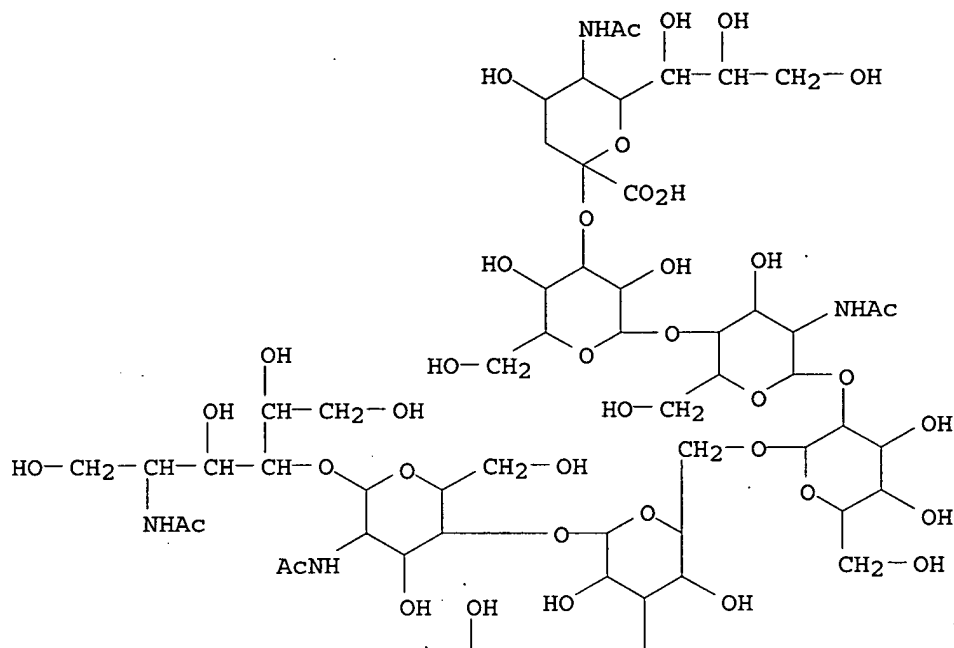
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (prepn. and mass spectra of)

RN 132497-51-9 HCAPLUS

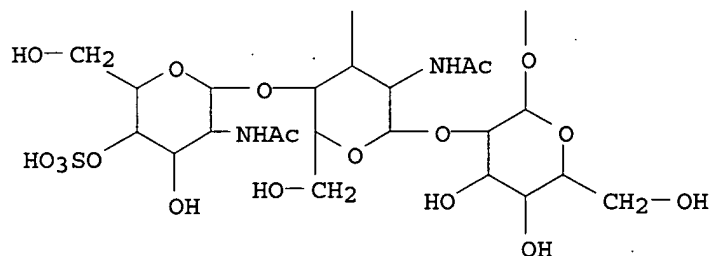
CN D-Glucitol, O-2-(acetylamino)-2-deoxy-4-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)



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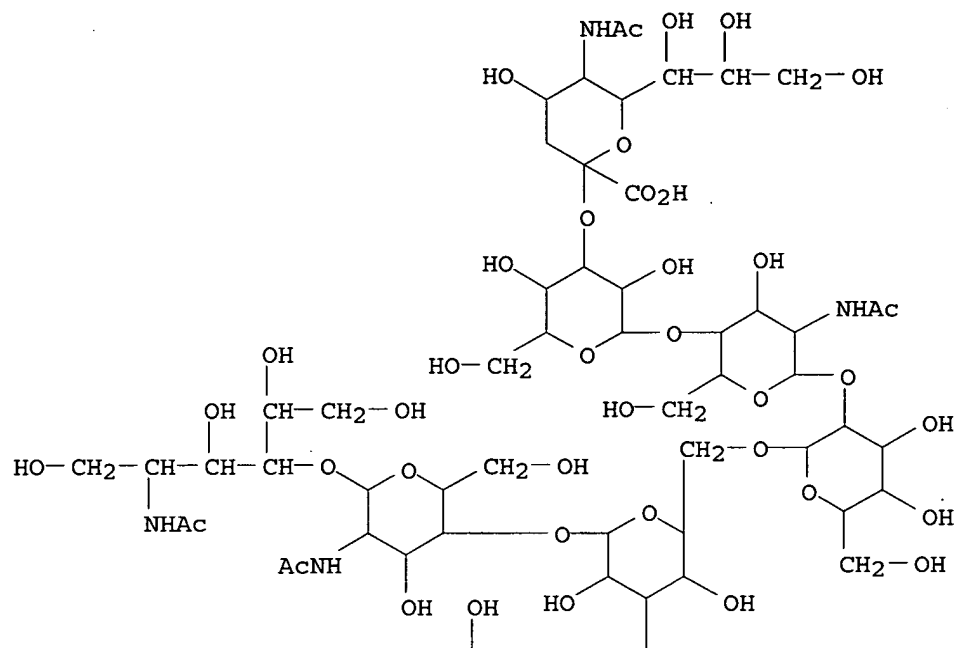
IT 132497-51-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. and methylation of)

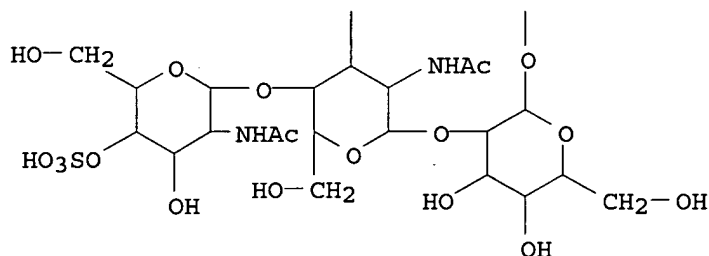
RN 132497-51-9 HCAPLUS

CN D-Glucitol, O-2-(acetylamino)-2-deoxy-4-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

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L15 ANSWER 12 OF 12 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1991:683 HCAPLUS

DOCUMENT NUMBER: 114:683

TITLE: Site-specific N-glycosylation of ovine lutropin.  
Structural analysis of one- and two-dimensional proton  
NMR spectroscopy

AUTHOR(S): Weisshaar, Gerhard; Hiyama, Jun; Renwick, Alistair G.  
C.

CORPORATE SOURCE: Dep. Biochem., Univ. Auckland, Auckland, N. Z.

SOURCE: European Journal of Biochemistry (1990), 192(3),  
741-51

CODEN: EJBCAI; ISSN: 0014-2956

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The Asn-linked carbohydrate structures of the heterodimeric glycoprotein  
hormone lutropin from ovine pituitary glands were examd. at each of its 3

glycosylation sites using 1- and 2-dimensional 400-MHz  $^1\text{H}$ -NMR spectroscopy. Highly purified, biol. active ovine lutropin (oLH) was dissocd. and sepd. into its .alpha. and .beta. subunits (oLH.alpha., glycosylated at Asn56 and Asn82; oLH.beta. glycosylated at Asn13). Oligosaccharides from intact oLH.beta. and from glycopeptides obtained after tryptic digestion of oLH.alpha. were released by hydrazinolysis and subsequently fractionated according to charge and size by anion-exchange and ion-suppression amine-adsorption HPLC, resp.  $^1\text{H}$ -NMR anal. revealed, that monosulfated, mostly hybrid-type, oligosaccharides predominate at both glycosylation sites of oLH.alpha., whereas a disulfated, diantennary N-acetylglucosamine-type structure accounts for > 60% of total oligosaccharides in the .beta. subunit. Furthermore, the saccharides attached to the .beta. subunit are almost completely fucosylated (Fuc.alpha.1-6) at the reducing terminal N-acetylglucosaminitol, whereas the sugar chains in oLH.alpha. are either approx. 50% fucosylated (Asn82) or contain fucose only to a minor extent (Asn56).

IT 130847-64-2

RL: BIOL (Biological study)

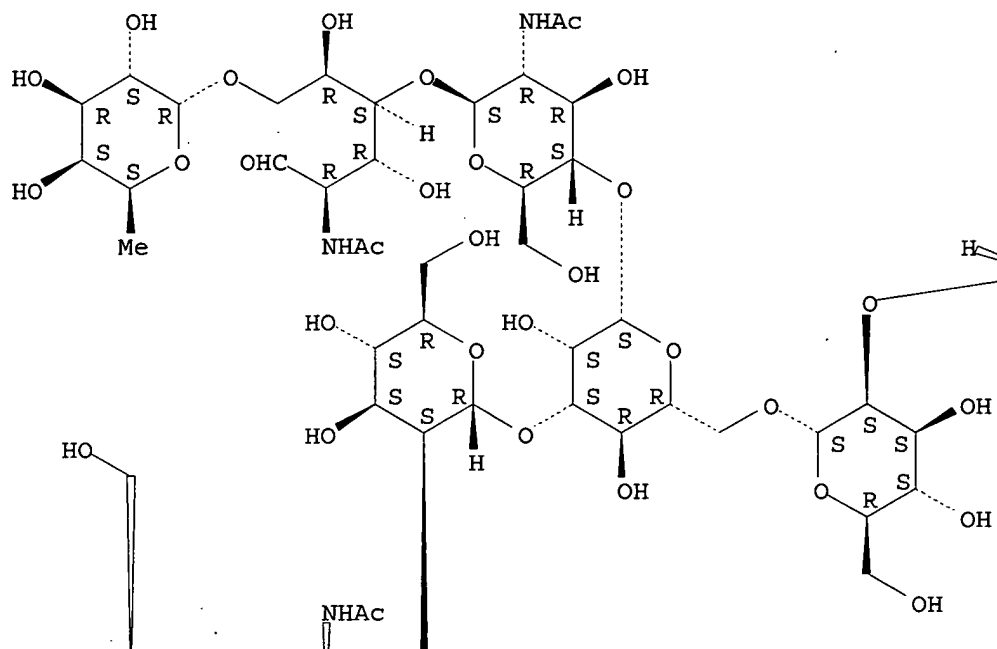
(of LH .alpha.- and .beta.-subunits)

RN 130847-64-2 HCAPLUS

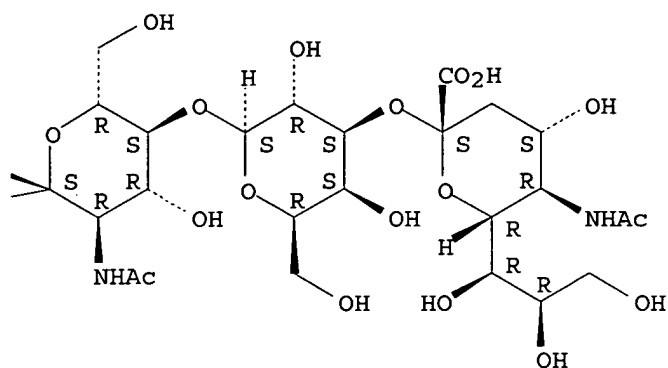
CN D-Glucose, O-2-(acetylamino)-2-deoxy-4-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

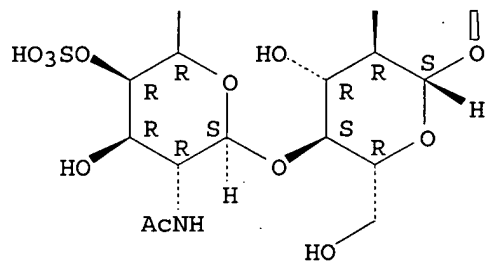
PAGE 1-A



PAGE 1-B



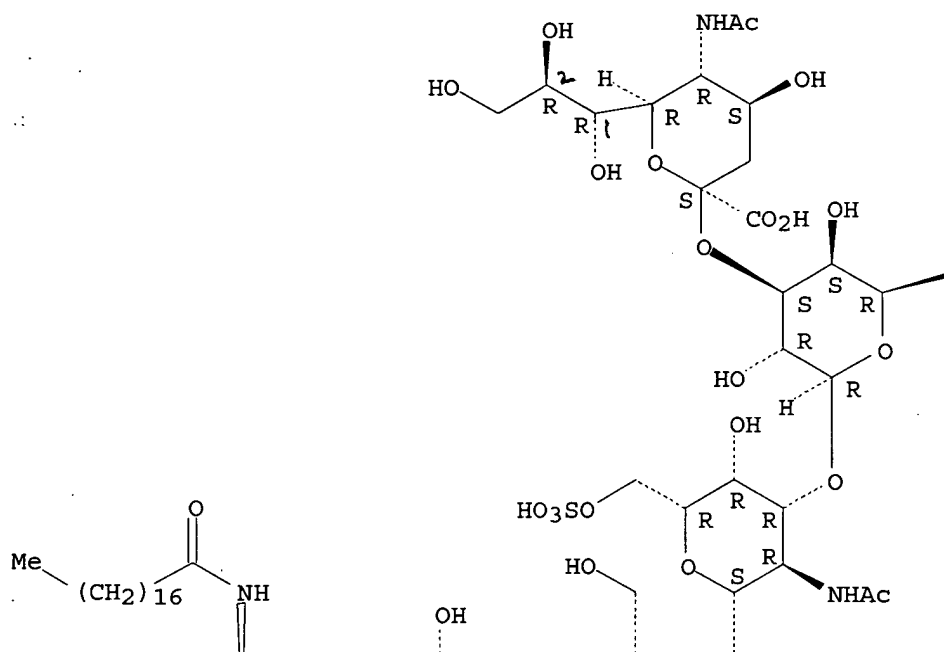
PAGE 2-A



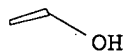
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranosyl]oxy]methyl]-2-hydroxy-3-heptadecenyl]-, trisodium salt (9CI)  
 MF C73 H131 N3 O37 S2 . 3 Na

Absolute stereochemistry.  
 Double bond geometry as shown.

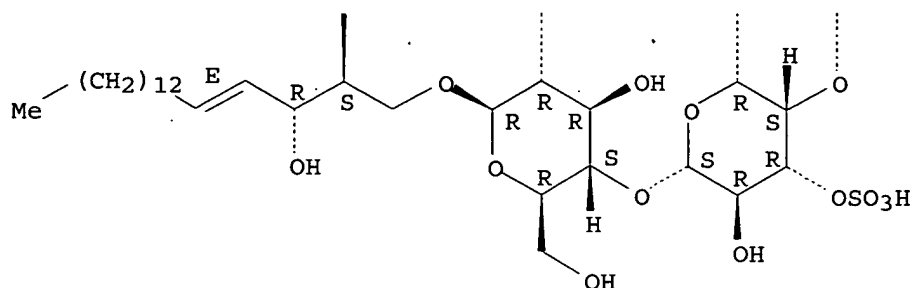
PAGE 1-A



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● 3 Na

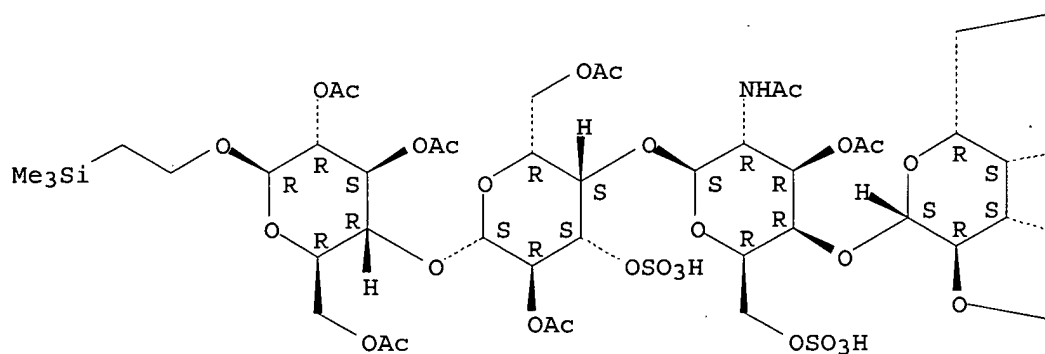
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

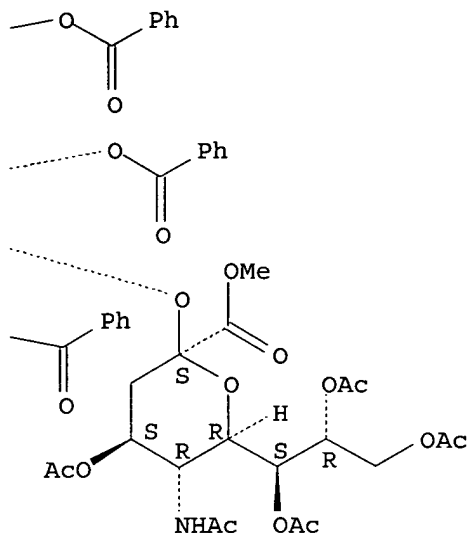
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN .beta.-D-Glucopyranoside, 2-(trimethylsilyl)ethyl O-(N-acetyl-4,7,8,9-  
 tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-  
 benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-acetyl-2-  
 (acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-  
 2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-,  
 2,3,6-triacetate (9CI)  
 MF C84 H108 N2 O48 S2 Si  
 CI COM

Absolute stereochemistry. Rotation (+).

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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> d sca

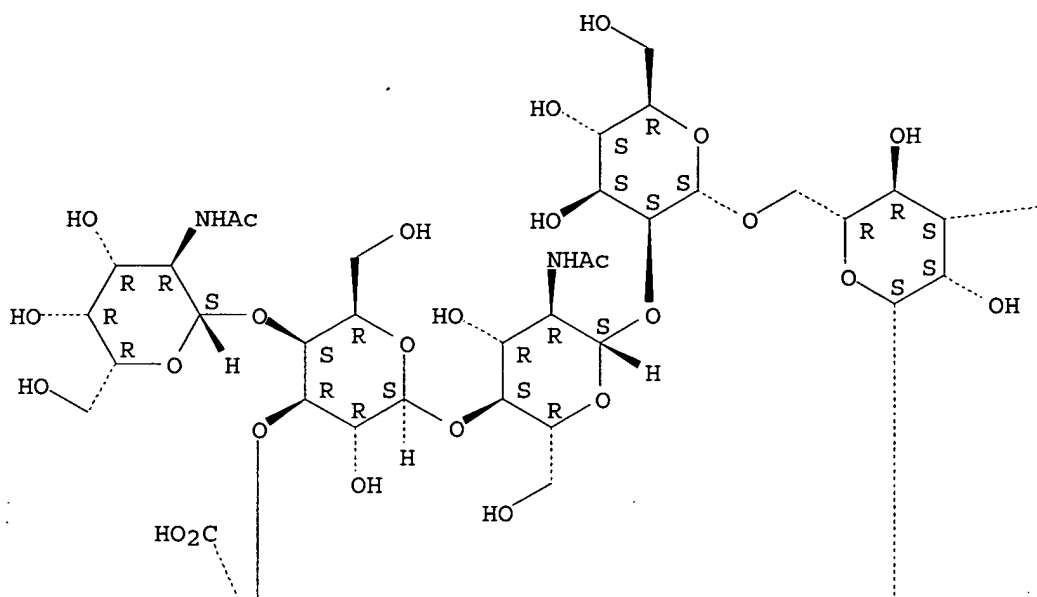
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)

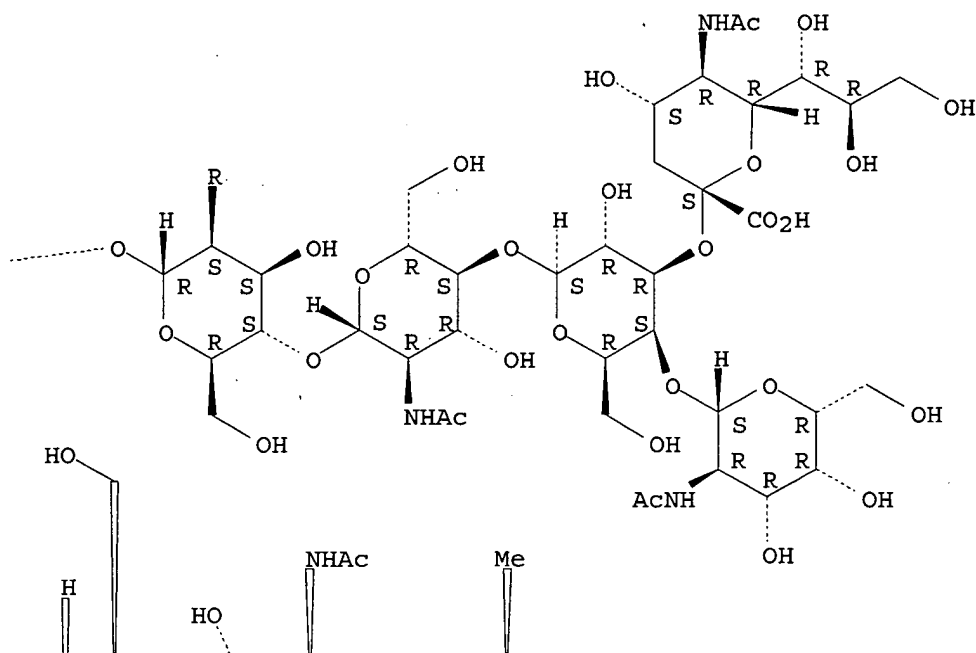
MF C120 H197 N9 O89 S

Absolute stereochemistry.

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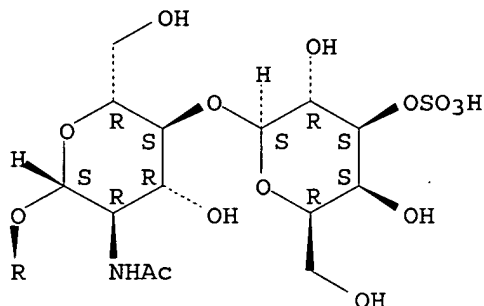
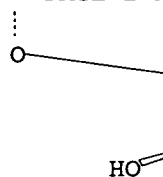
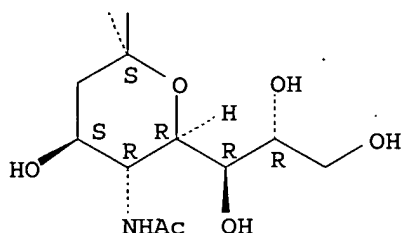


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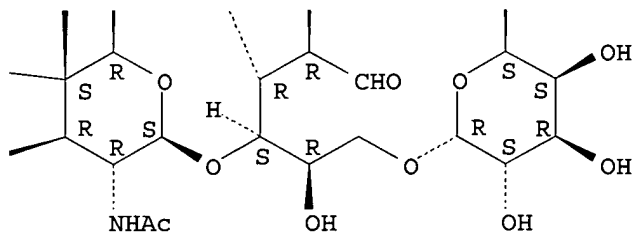




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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):40

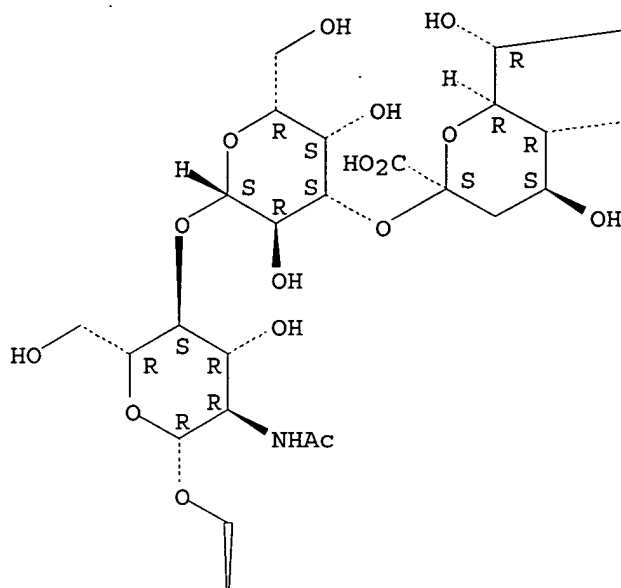
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)

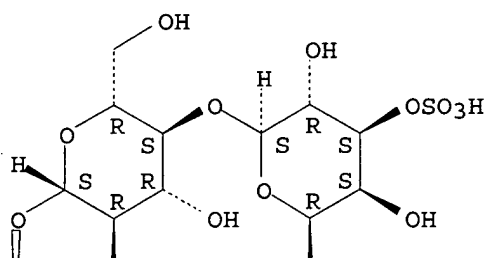
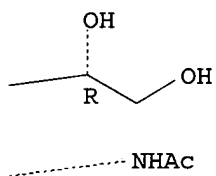
MF C126 H207 N9 O97 S2

Absolute stereochemistry.

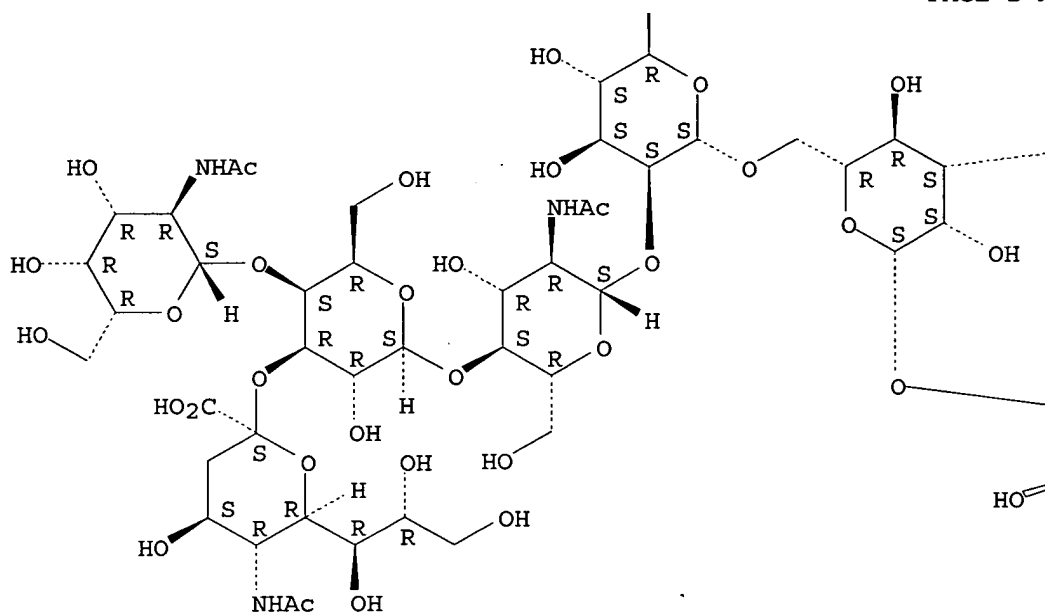
PAGE 1-A



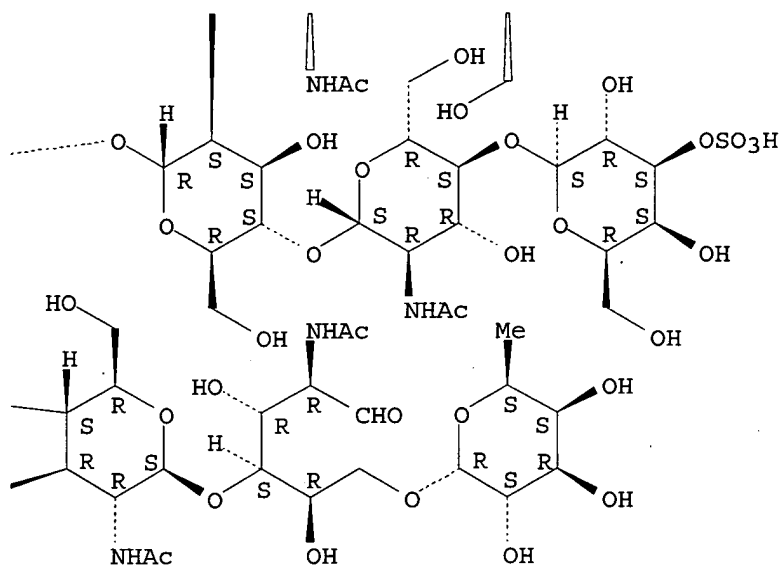
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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

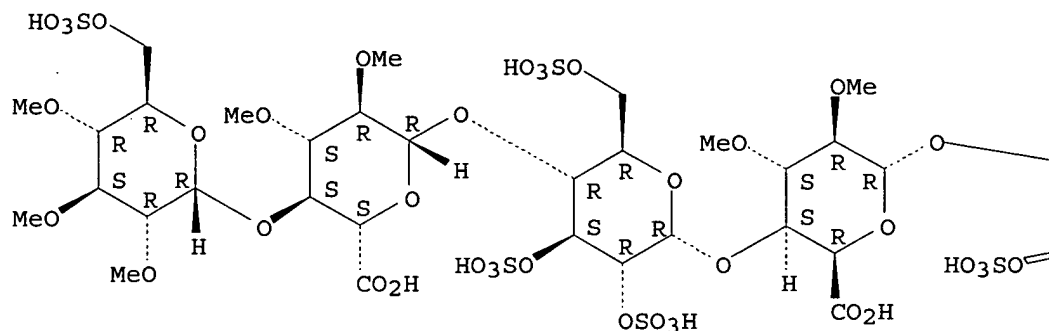
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN D-glycero-L-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-

(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.3)-2,6-anhydro-7,8-dideoxy-5-O-methyl-8-[[ (phenylmethoxy) carbonyl] amino] -, 1,4-bis (hydrogen sulfate) (9CI)

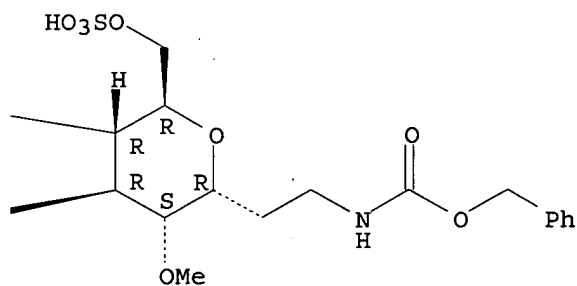
MF C48 H75 N O47 S6

Absolute stereochemistry.

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L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

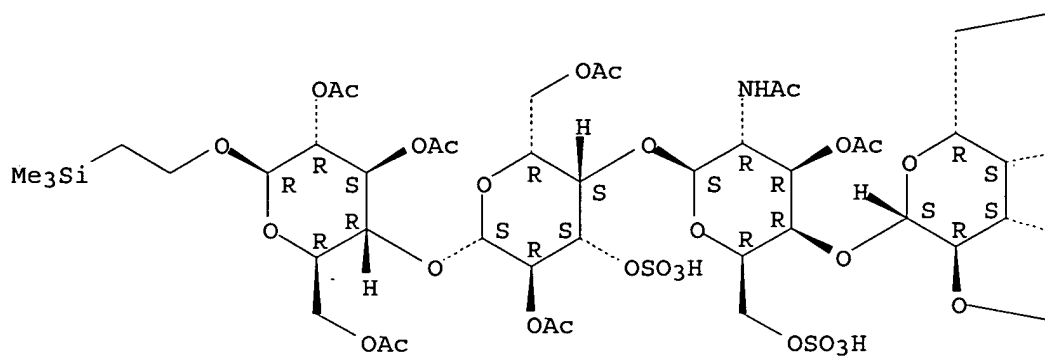
IN .beta.-D-Glucopyranoside, 2-(trimethylsilyl)ethyl O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-acetyl-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-, 2,3,6-triacetate, compd. with pyridine (1:2) (9CI)

MF C84 H108 N2 O48 S2 Si . 2 C5 H5 N

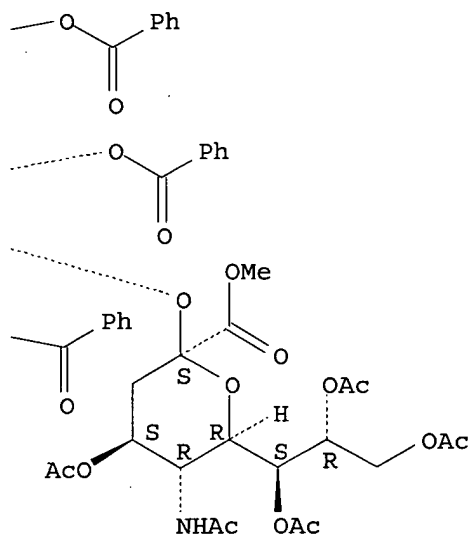
CM 1

Absolute stereochemistry. Rotation (+).

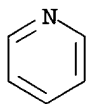
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CM 2



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

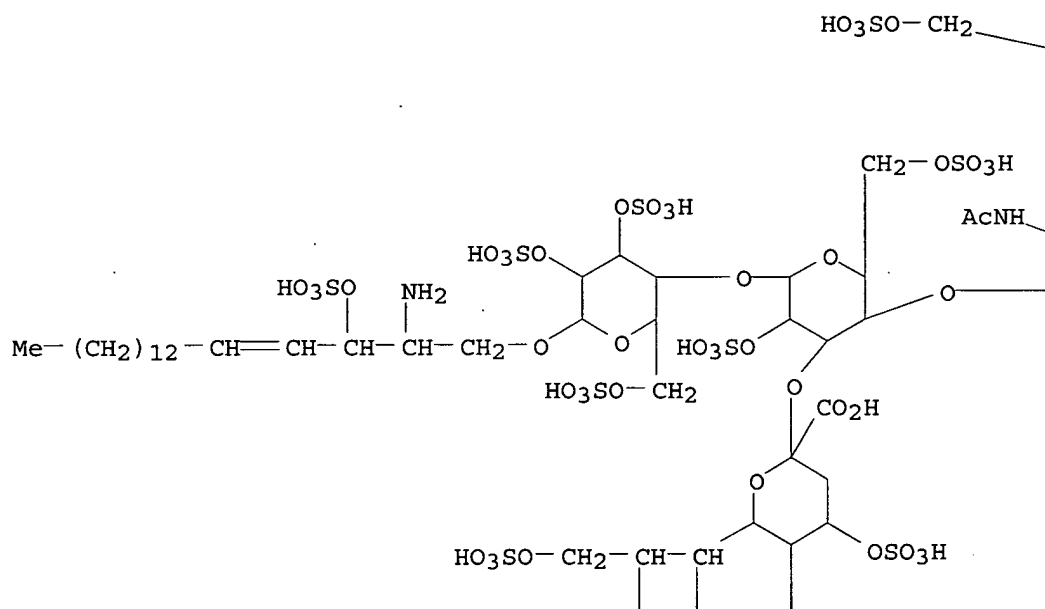
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN .beta.-D-Glucopyranoside, 2-amino-3-(sulfooxy)-4-octadecenyl  
 O-(N-acetyl-4,7,8,9-tetra-O-sulfo-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-[O-

2,3,4,6-tetra-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.3)-2-(  
 (acetylamino)-2-deoxy-4,6-di-O-sulfo-.beta.-D-galactopyranosyl-  
 (1.fwdarw.4))-O-2,6-di-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-,  
 2,3,6-tris(hydrogen sulfate), [R-(R\*,S\*)]-, compd. with  
 N,N-dimethylmethanamine (9CI)

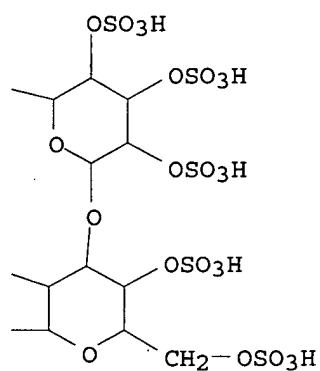
MF C55 H97 N3 O78 S16 . x C3 H9 N

CM 1

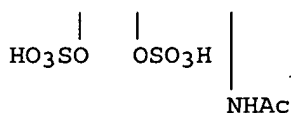
PAGE 1-A



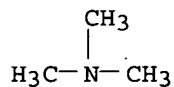
PAGE 1-B



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CM 2



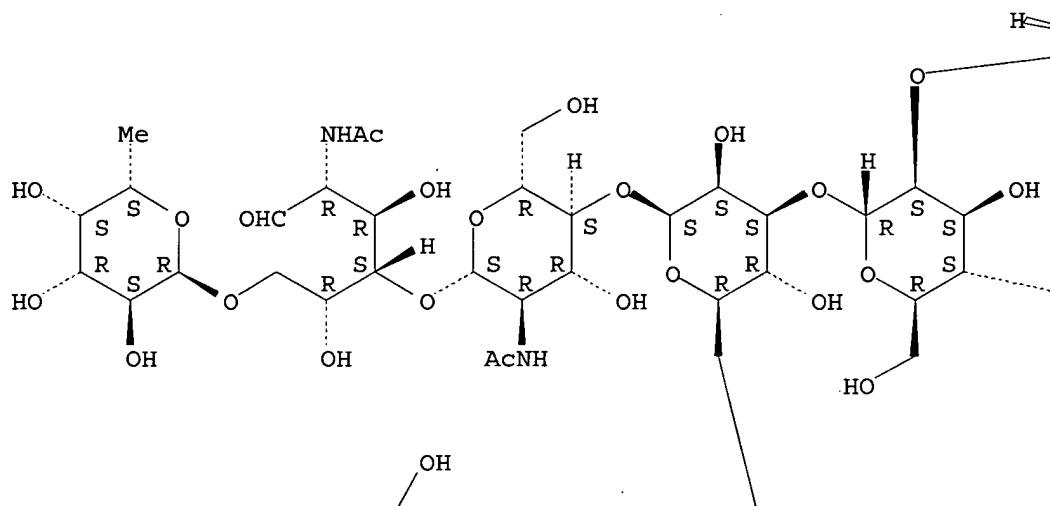
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O- (N-acetyl-.alpha.-neuraminosyl) - (2.fwdarw.6) -O-.beta.-D-galactopyranosyl-(1.fwdarw.4) -O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2) -O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4) -2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)] -O-.alpha.-D-mannopyranosyl-(1.fwdarw.3) -O-[O- (N-acetyl-.alpha.-neuraminosyl) - (2.fwdarw.3) -O-.beta.-D-galactopyranosyl-(1.fwdarw.4) -O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2) -.alpha.-D-mannopyranosyl-(1.fwdarw.6)] -O-.beta.-D-mannopyranosyl-(1.fwdarw.4) -O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4) -O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)] -2-(acetylamino)-2-deoxy- (9CI)

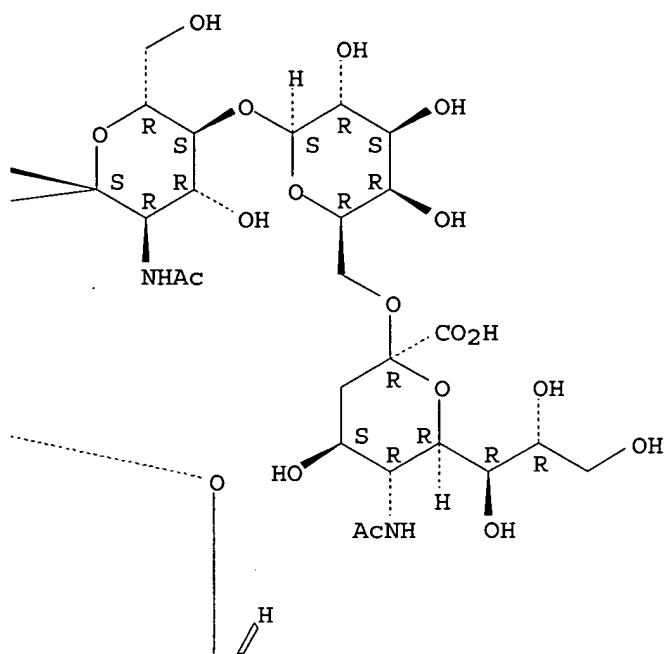
MF C104 H171 N7 O79 S

Absolute stereochemistry.

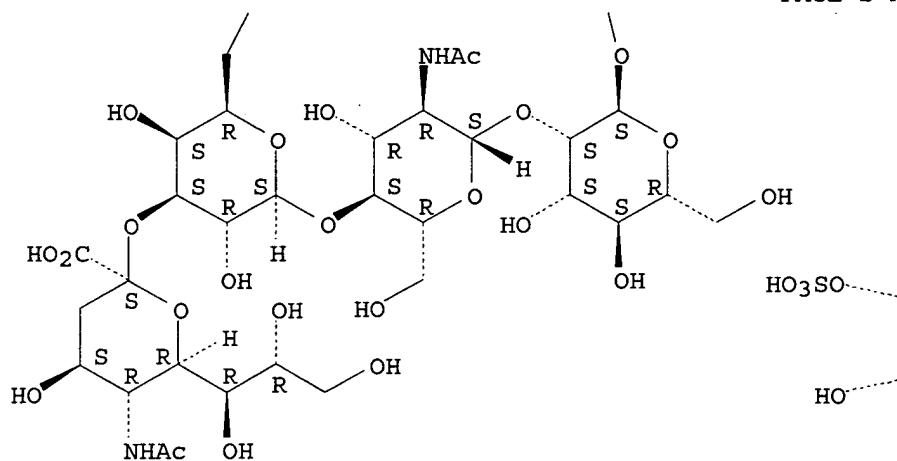
PAGE 1-A



PAGE 1-B

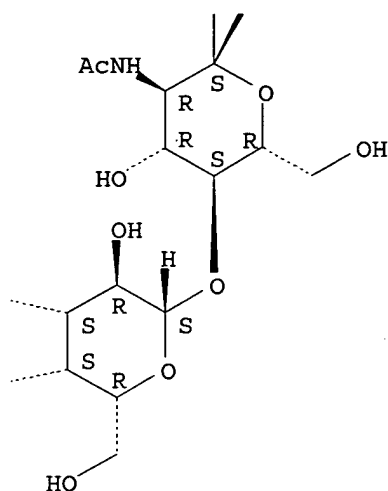


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PAGE 2-B

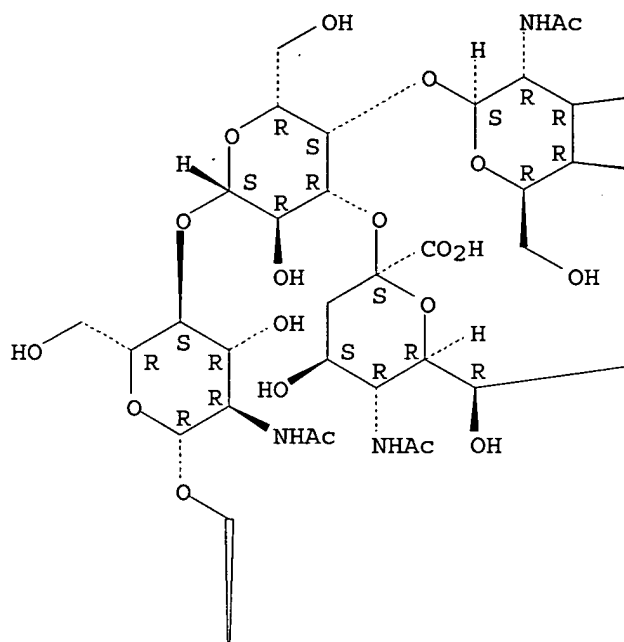


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

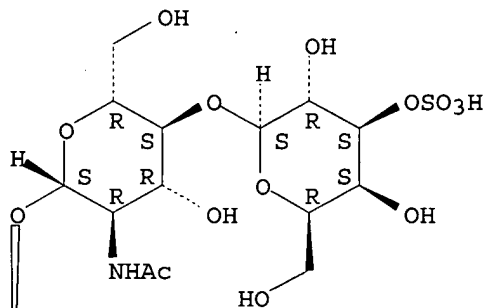
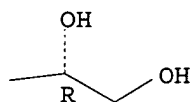
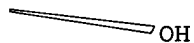
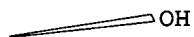
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-2-(acetylamino)-2-deoxy-.alpha.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)  
 MF C134 H220 N10 O102 S2

Absolute stereochemistry.

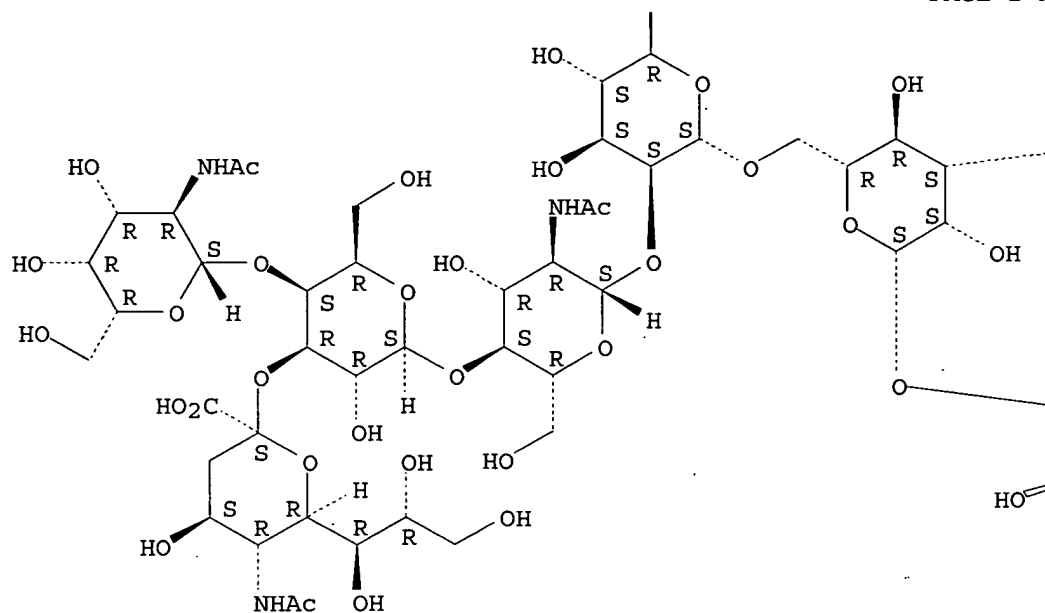
PAGE 1-A



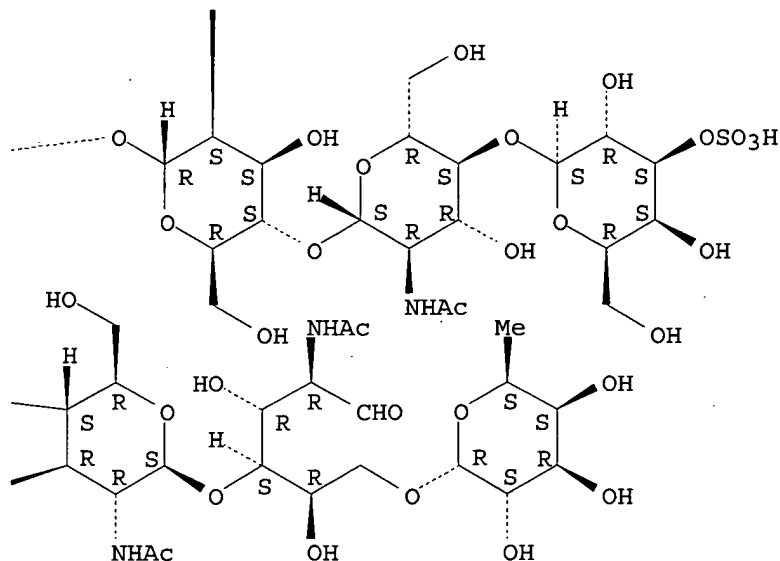
PAGE 1-B



PAGE 2-A



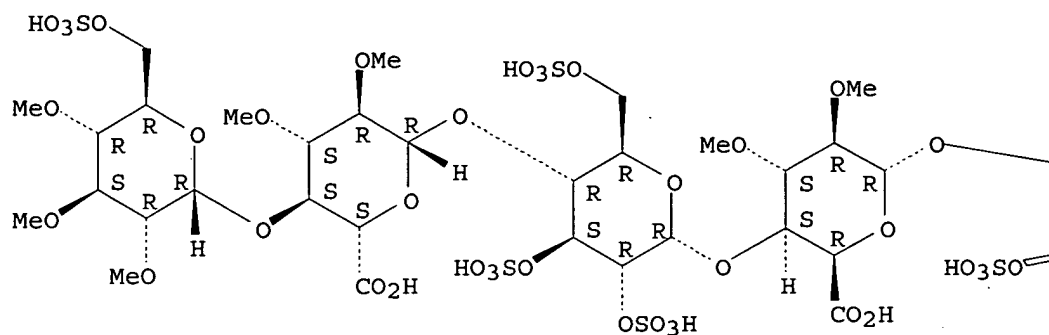
PAGE 2-B



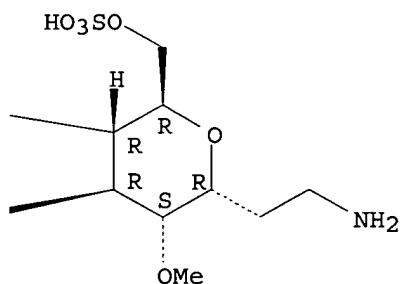
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN D-glycero-L-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.3)-8-amino-2,6-anhydro-7,8-dideoxy-5-O-methyl-, 1,4-bis(hydrogen sulfate) (9CI)  
 MF C40 H69 N O45 S6

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

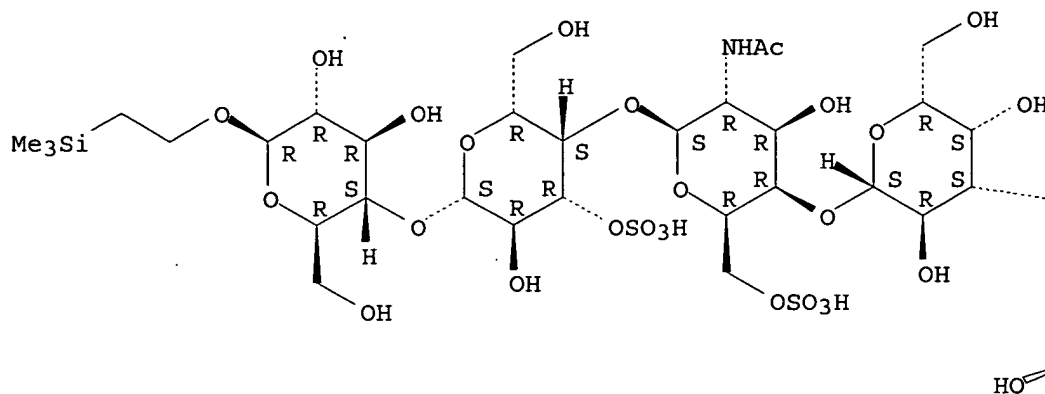


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN .beta.-D-Glucopyranoside, 2-(trimethylsilyl)ethyl O-(N-acetyl-.alpha.-  
 neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-  
 (acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-  
 O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-, trisodium salt (9CI)  
 MF C42 H74 N2 O35 S2 Si . 3 Na

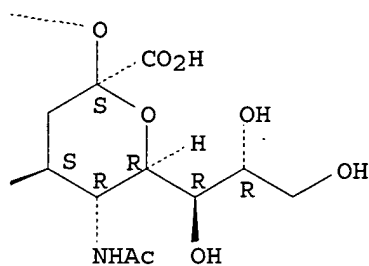
Absolute stereochemistry. Rotation (-).

PAGE 1-A



● 3 Na

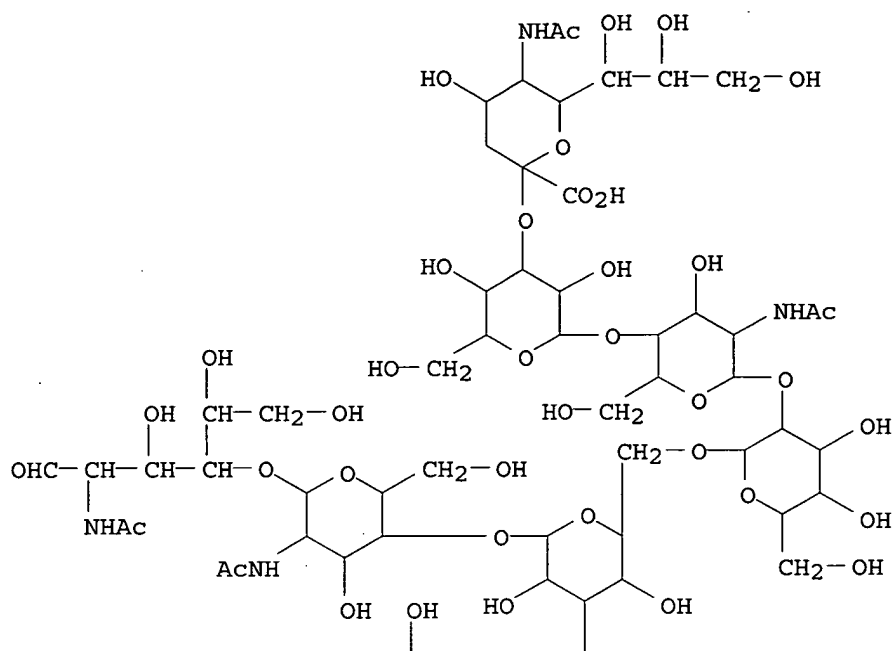
PAGE 1-B



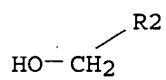
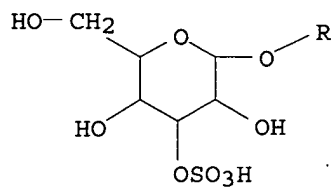
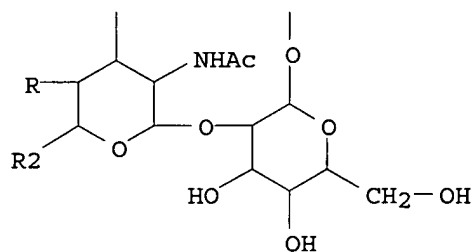
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI)  
 MF C73 H121 N5 O57 S

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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

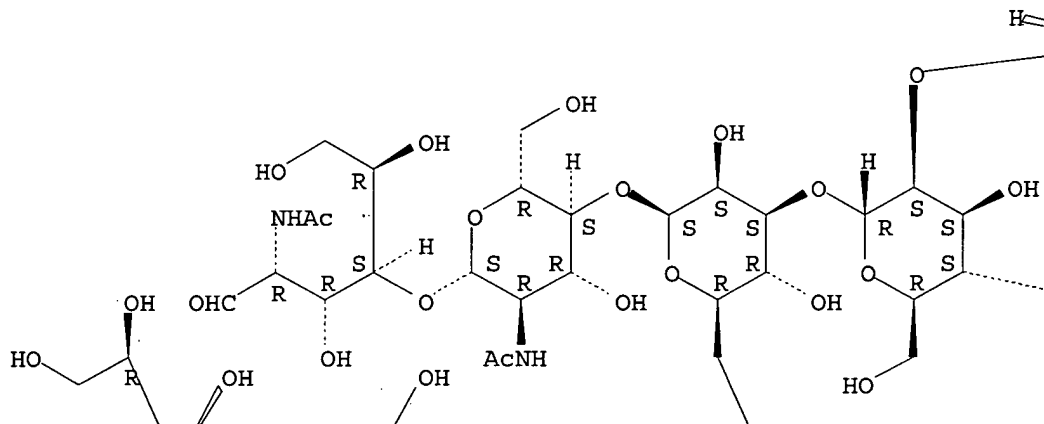
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.6)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI)

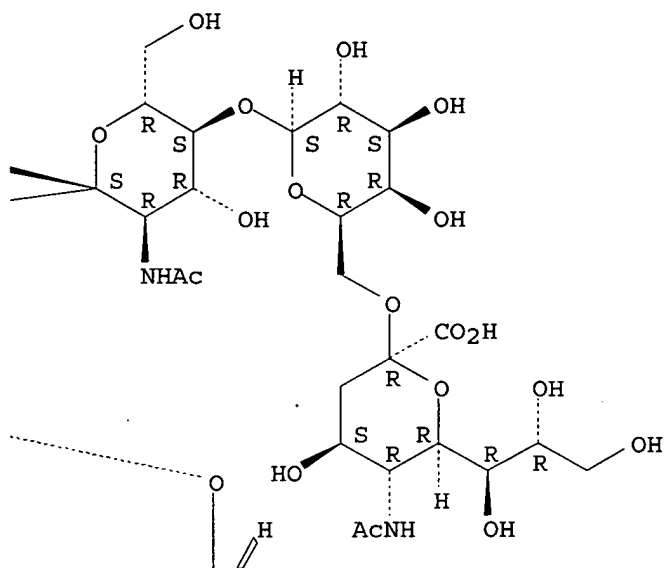
MF C98 H161 N7 O75 S

Absolute stereochemistry.

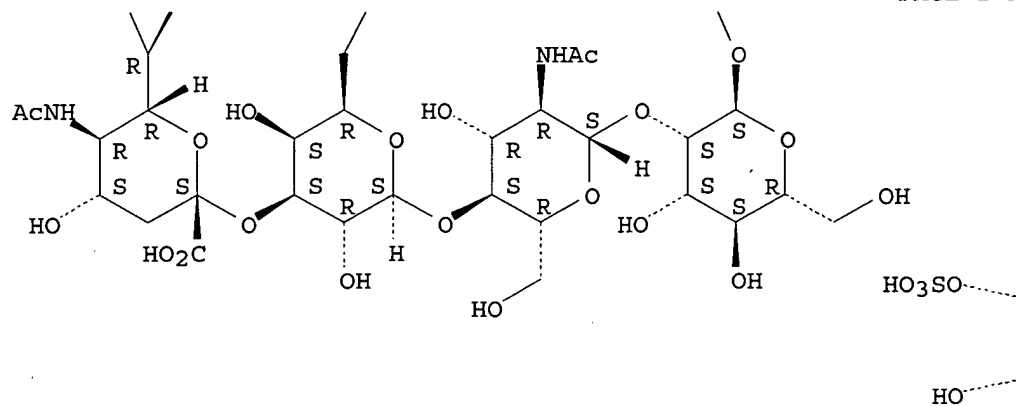
PAGE 1-A



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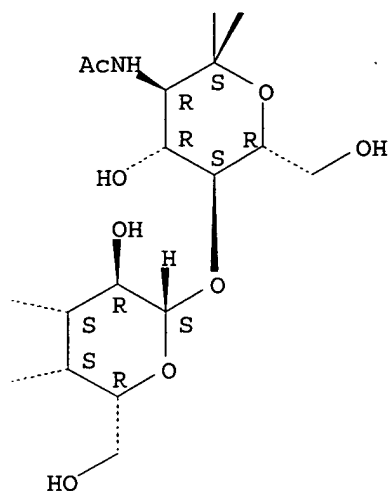


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PAGE 2-B

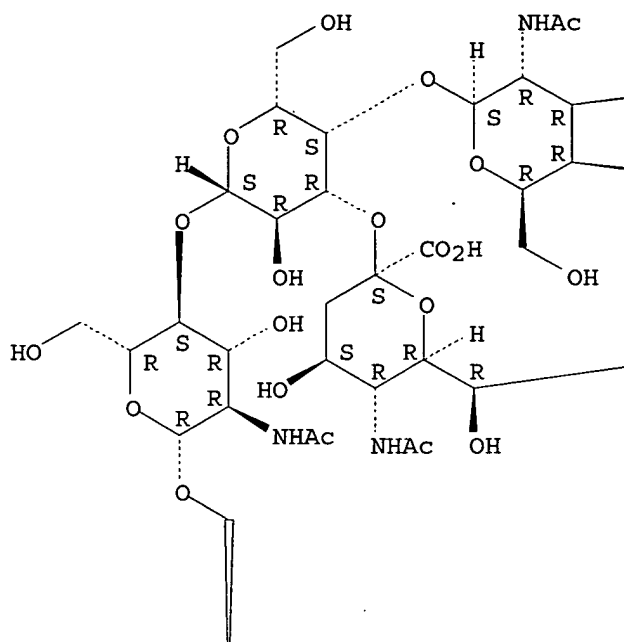


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

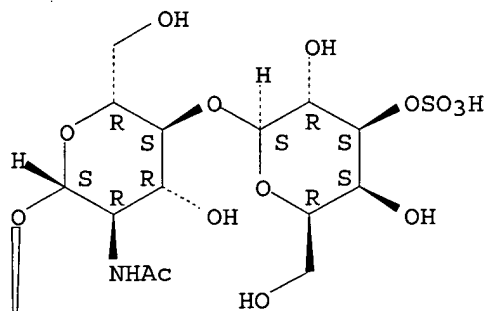
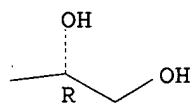
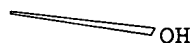
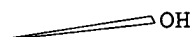
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-  
 (1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-  
 galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-  
 glucopyranosyl-(1.fwdarw.2)-O-[O-2-(acetylamino)-2-deoxy-.alpha.-D-  
 galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-  
 (2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-  
 deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-  
 (1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-  
 (acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-  
 .beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-  
 glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-  
 .beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-  
 glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI)  
 MF C128 H210 N10 O98 S2

Absolute stereochemistry.

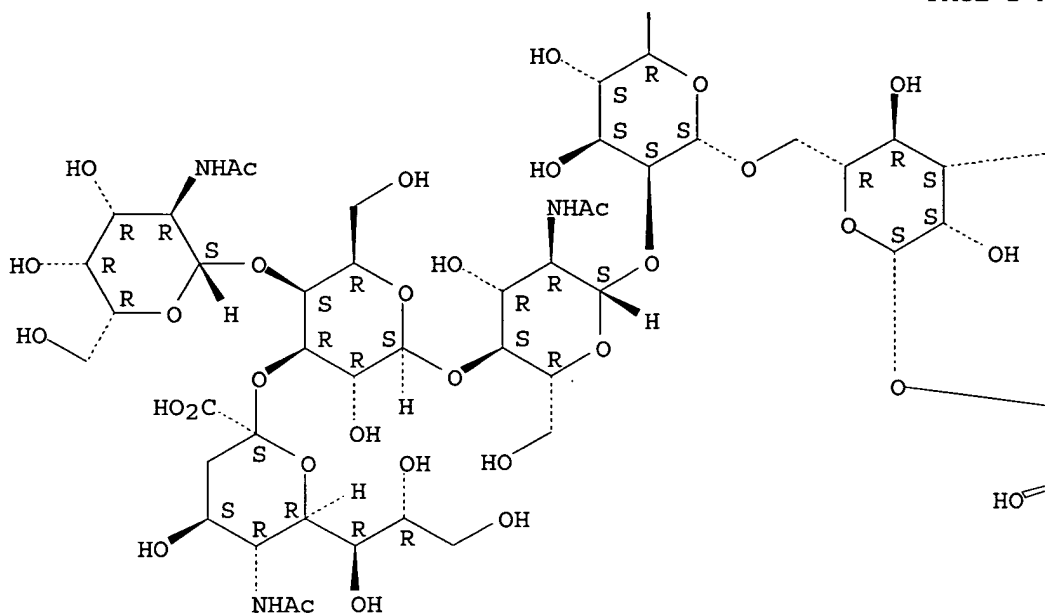
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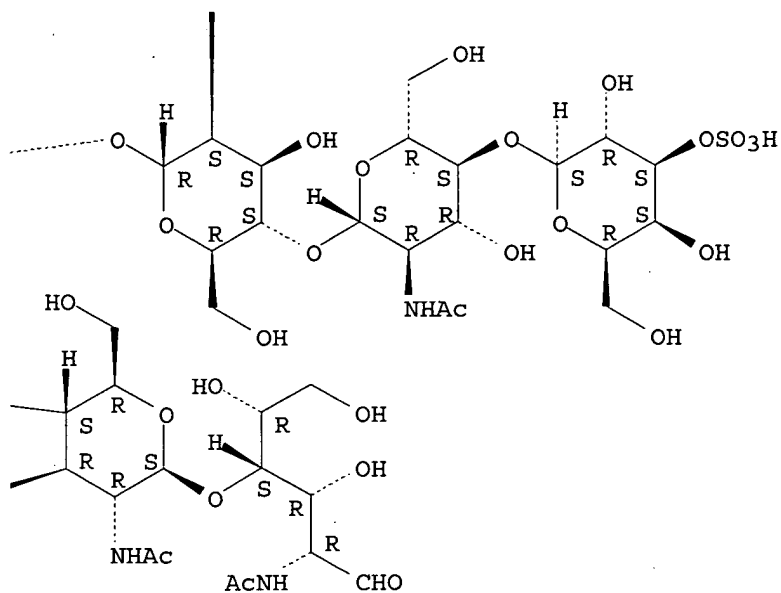
PAGE 1-B



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PAGE 2-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

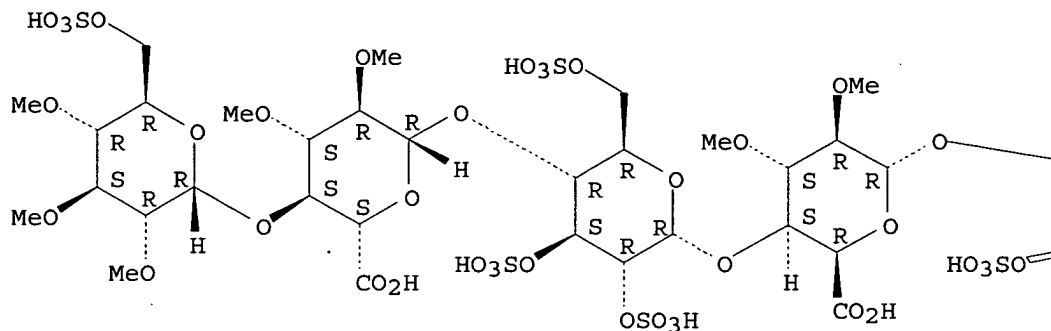
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN D-glycero-L-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-

2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.3)-2,6-anhydro-7,8-dideoxy-5-O-methyl-8-[[[(2R)-1-oxo-2,3-bis[[[phenylmethoxy)carbonyl]amino]propyl]amino]-, 1,4-bis(hydrogen sulfate) (9CI)

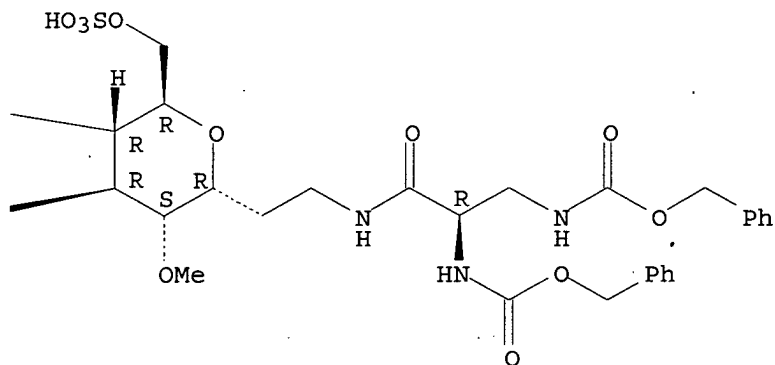
MF C59 H87 N3 O50 S6

Absolute stereochemistry.

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PAGE 1-B



L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

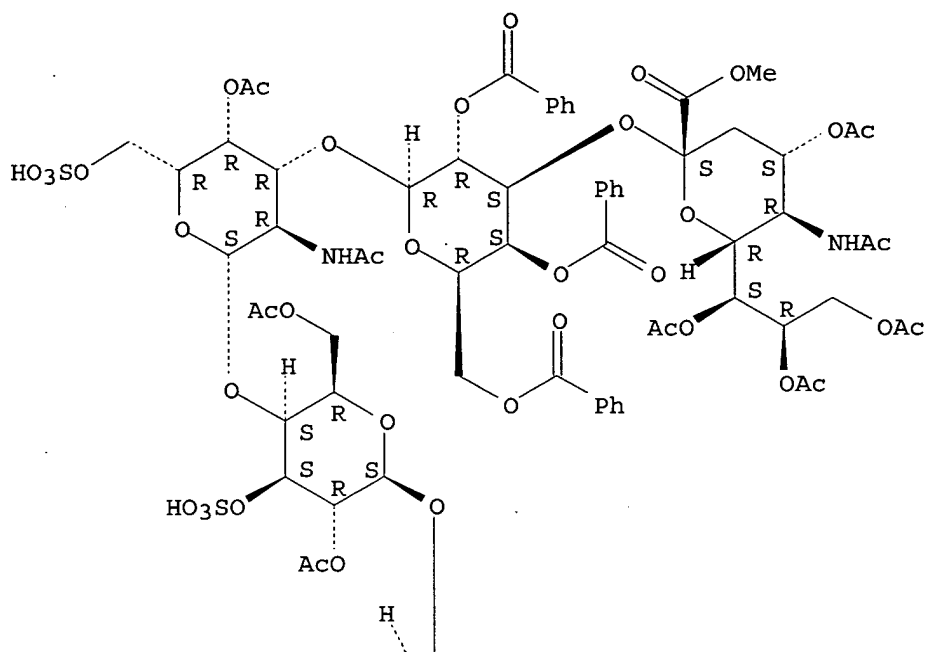
IN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-4-O-acetyl-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-glucopyranosyl]oxymethyl]-2-(benzoyloxy)-3-heptadecenyl]-, compd. with pyridine (1:2) (9CI)

MF C122 H169 N3 O51 S2 . 2 C5 H5 N

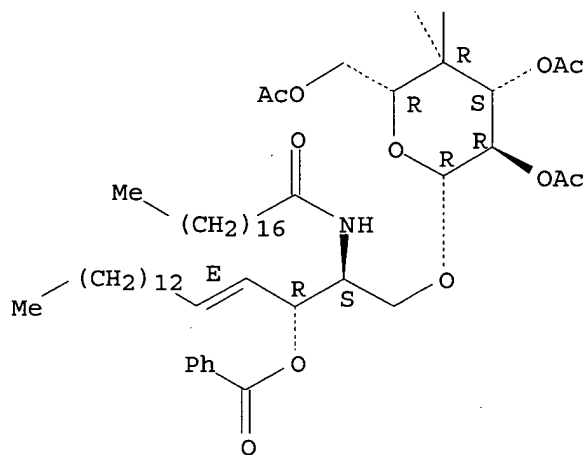
CM 1

Absolute stereochemistry.  
Double bond geometry as shown.

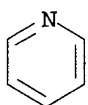
PAGE 1-A



PAGE 2-A



CM 2



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

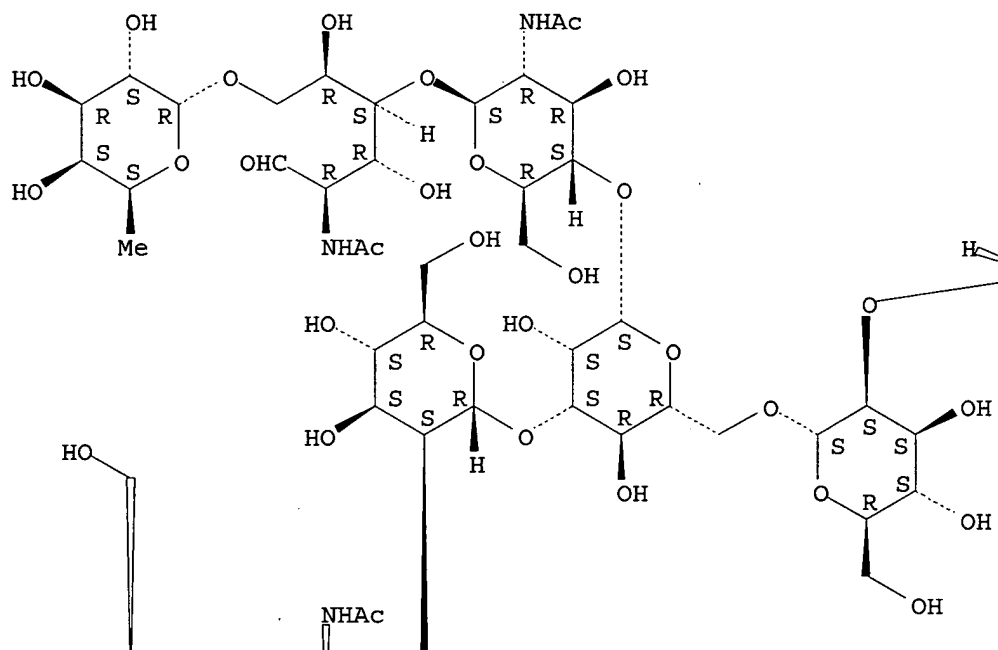
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)

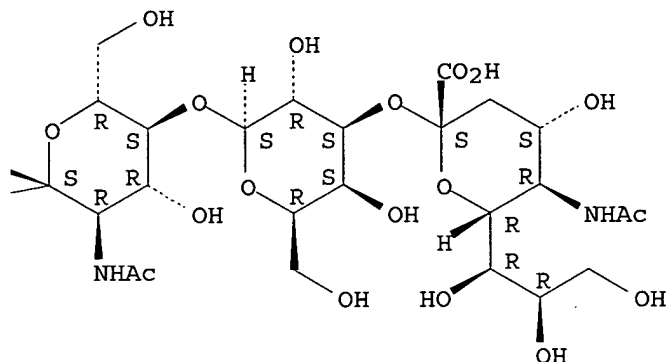
MF C79 H131 N5 O61 S

Absolute stereochemistry.

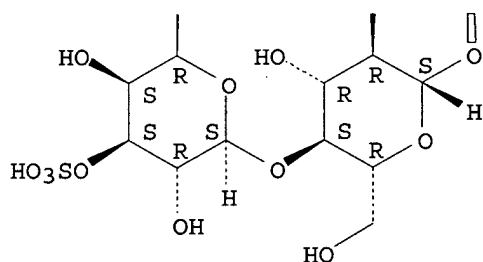
PAGE 1-A



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PAGE 2-A



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)

MF C93 H154 N6 O74 S2

Absolute stereochemistry.

The diagram shows a branched oligosaccharide structure consisting of four pyranose rings. The rings are linked by  $\alpha$ -1,4 and  $\alpha$ -1,6 glycosidic bonds. The substituents on the rings are as follows:

- Top-left ring:**  $\alpha$ -1,4-linked to the top-right ring. Substituents:  $\text{OH}$  (axial),  $\text{NHAc}$  (equatorial),  $\text{OH}$  (axial),  $\text{OH}$  (equatorial).
- Top-right ring:**  $\alpha$ -1,6-linked to the bottom-right ring. Substituents:  $\text{OH}$  (axial),  $\text{OSO}_3\text{H}$  (equatorial),  $\text{OH}$  (axial),  $\text{OH}$  (equatorial).
- Bottom-left ring:**  $\alpha$ -1,6-linked to the top-left ring. Substituents:  $\text{OH}$  (axial),  $\text{OH}$  (equatorial),  $\text{OH}$  (axial),  $\text{OH}$  (equatorial).
- Bottom-right ring:**  $\alpha$ -1,4-linked to the bottom-left ring. Substituents:  $\text{OH}$  (axial),  $\text{NHAc}$  (equatorial),  $\text{OH}$  (axial),  $\text{OH}$  (equatorial).

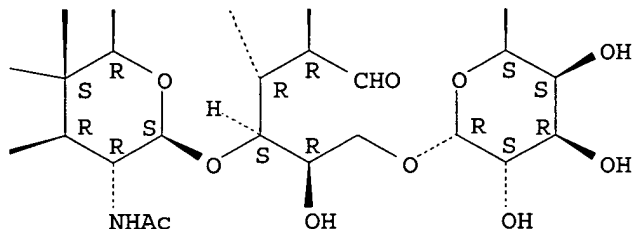
Dashed lines indicate connections to other parts of the molecule: a vertical line from the top-left ring, a horizontal line from the top-right ring, a vertical line from the bottom-left ring, and a vertical line from the bottom-right ring.



PAGE 2-A



PAGE 2-B

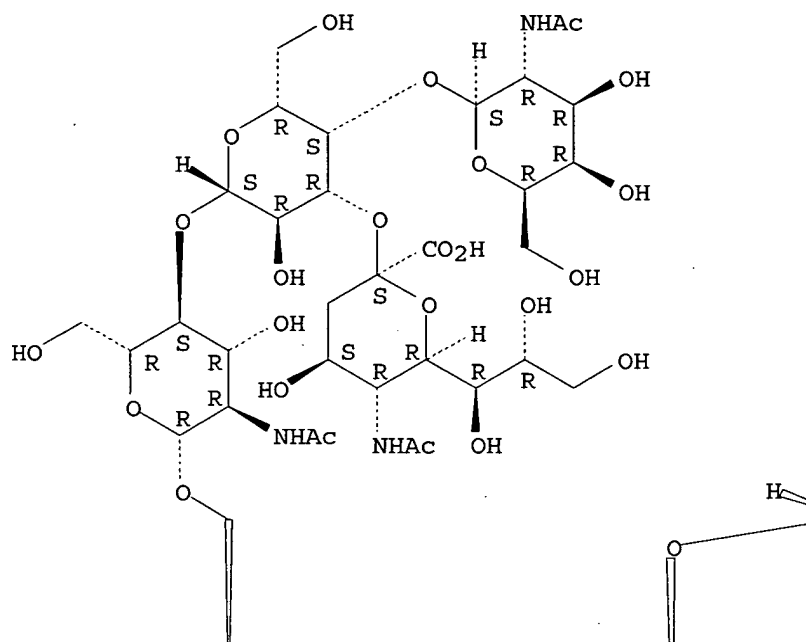


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

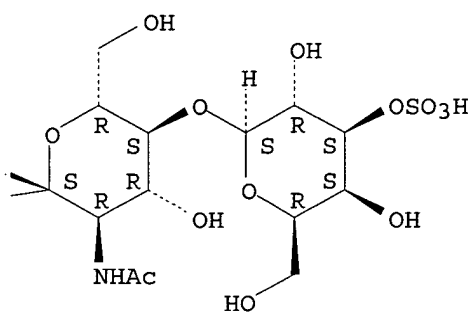
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-  
 (1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-  
 galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-  
 glucopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-  
 (1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-  
 O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-  
 galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-  
 glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-  
 (1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-  
 .alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-  
 (1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-  
 (1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-  
 (acetylamino)-2-deoxy- (9CI)  
 MF C115 H190 N8 O92 S3

Absolute stereochemistry.

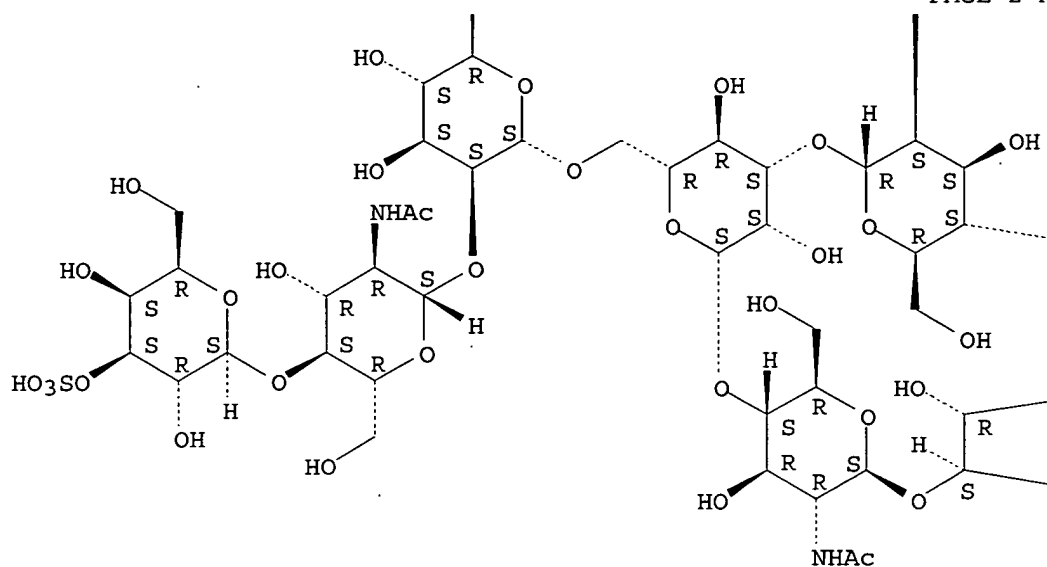
PAGE 1-A



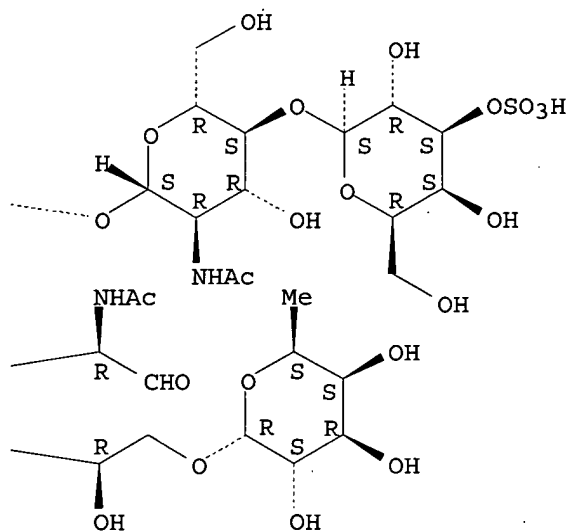
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PAGE 2-B



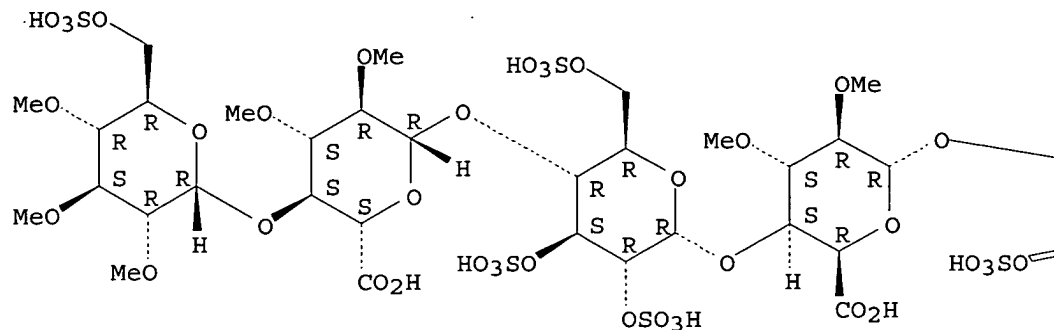
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN D-glycero-L-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.3)-2,6-anhydro-7,8-dideoxy-8-[[ (2R)-2,3-diamino-1-oxopropyl]amino]-5-O-methyl-, 1,4-bis(hydrogen sulfate) (9CI)

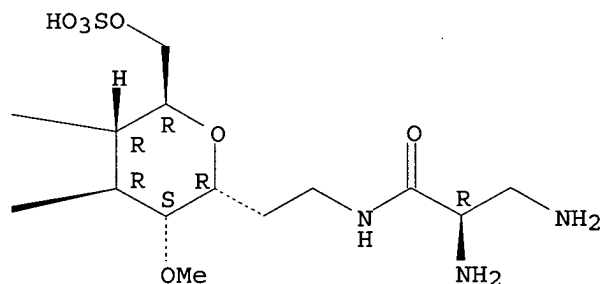
MF C43 H75 N3 O46 S6

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

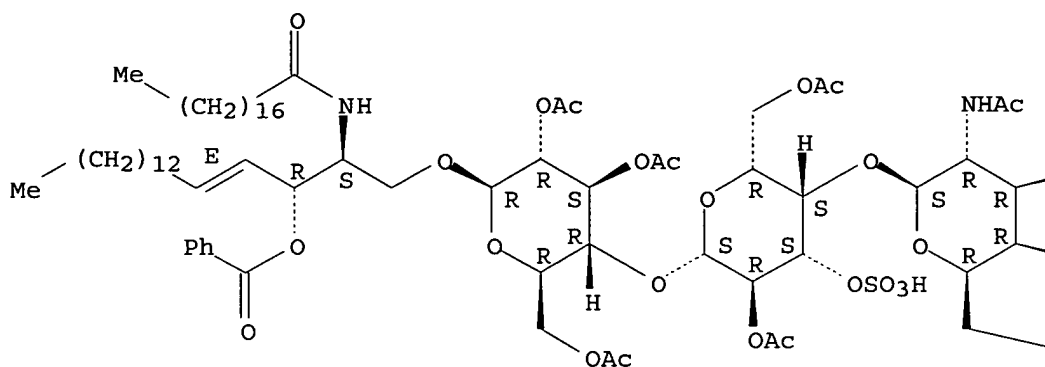
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-acetyl-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-acetyl-.beta.-D-glucopyranosyl]oxymethyl]-2-(benzoyloxy)-3-heptadecenyl]-, compd. with pyridine (1:2) (9CI)

MF C122 H169 N3 O51 S2 . 2 C5 H5 N

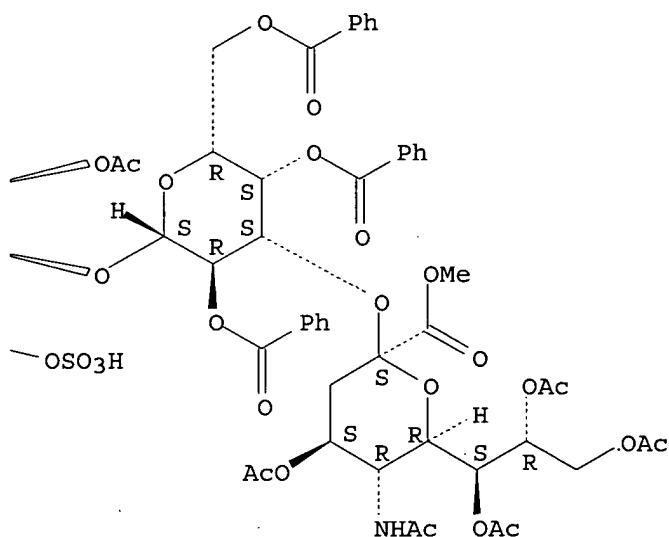
CM 1

Absolute stereochemistry.  
 Double bond geometry as shown.

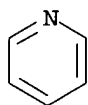
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CM 2



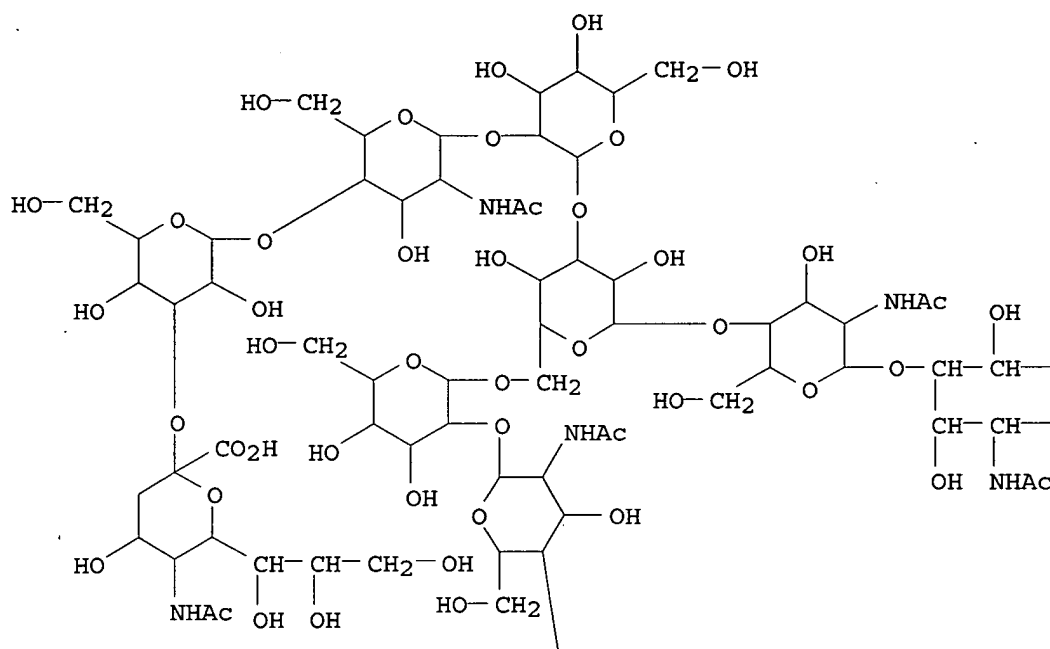
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-  
 galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-  
 glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-3-

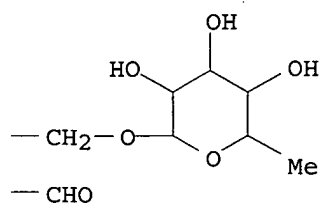
O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)

MF C79 H131 N5 O61 S

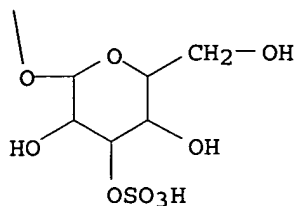
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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

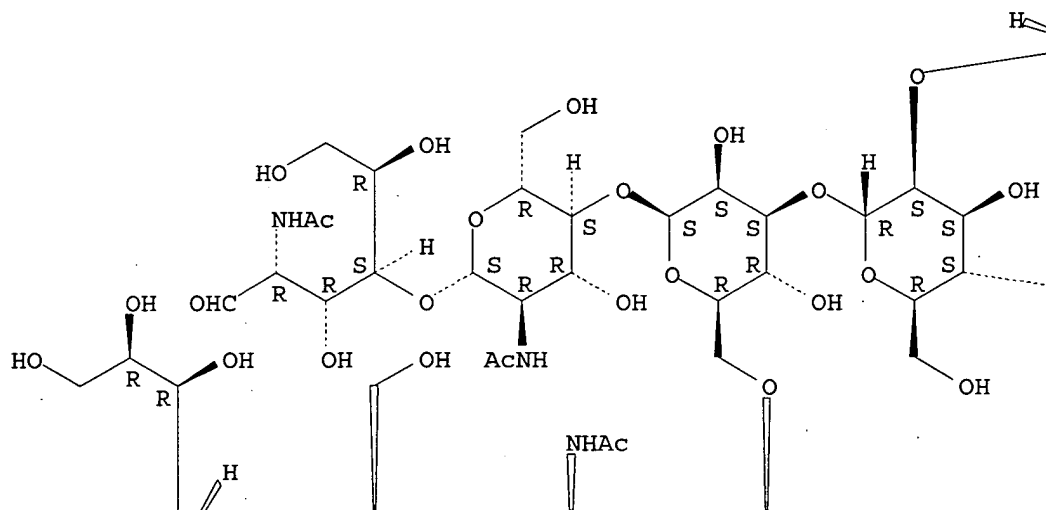
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI)

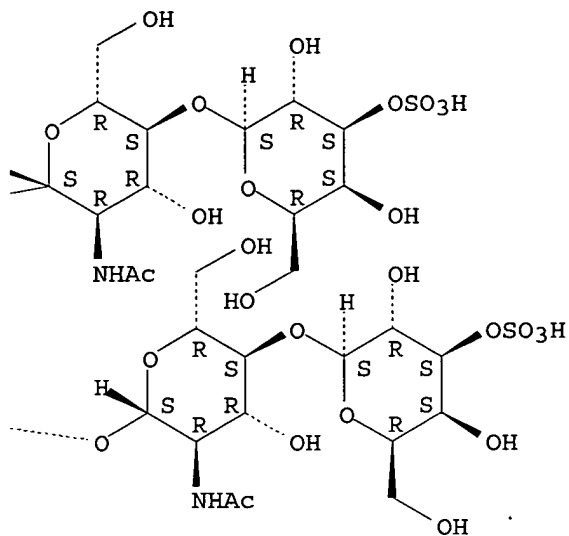
MF C87 H144 N6 O70 S2

Absolute stereochemistry.

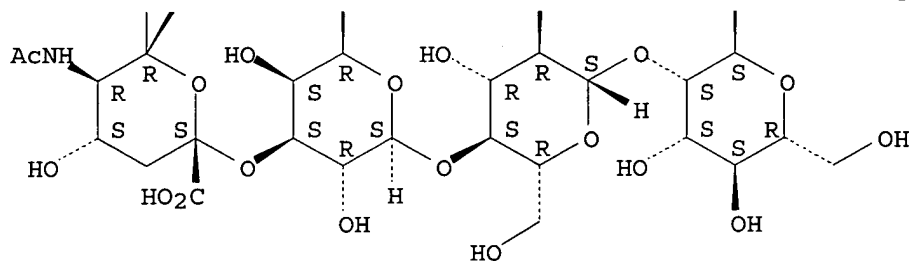
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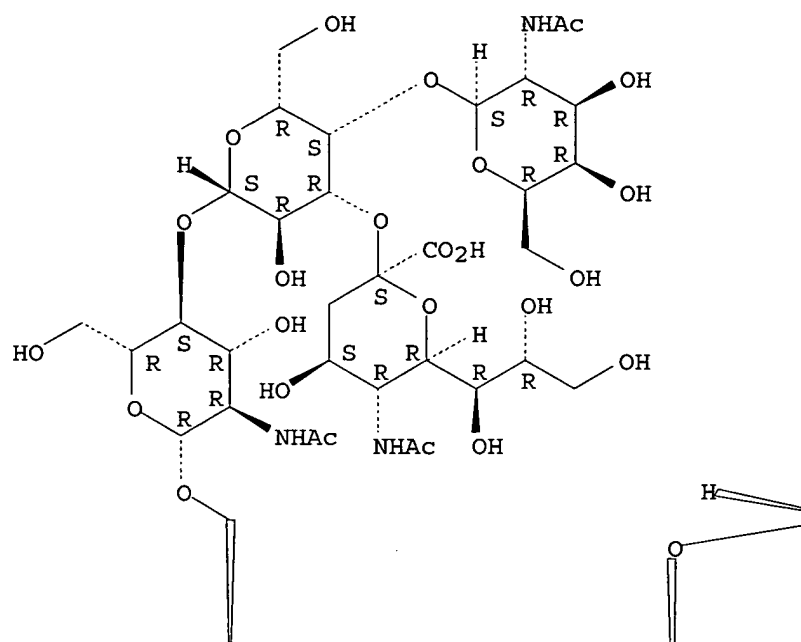
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI)  
 MF C109 H180 N8 O88 S3

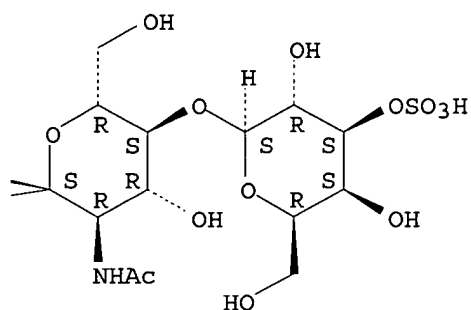
Absolute stereochemistry.



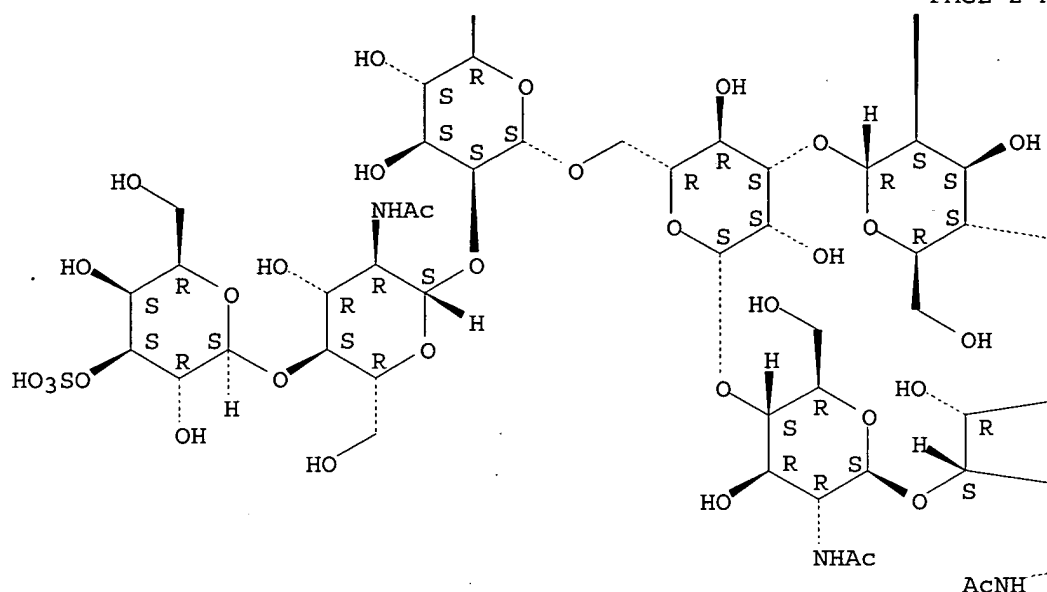
PAGE 1-A



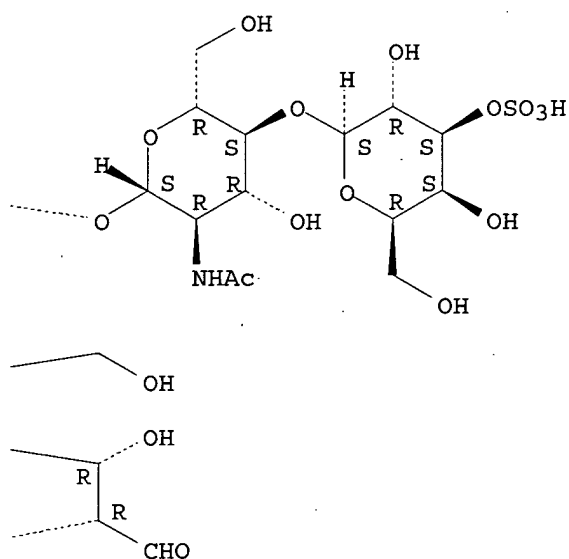
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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

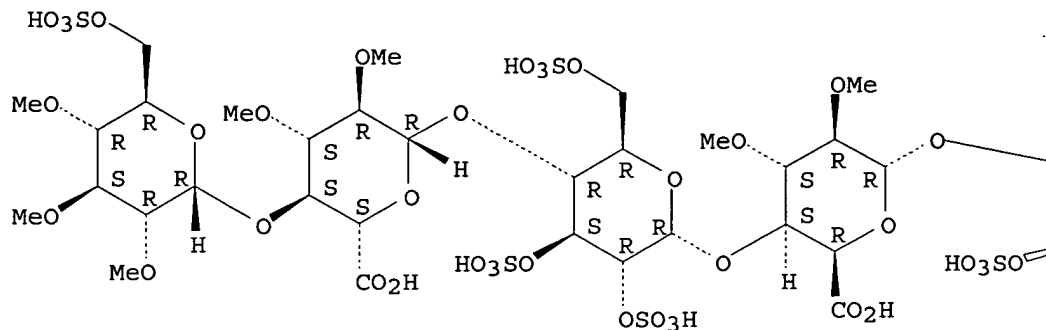
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN D-glycero-D-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.6)-3,7-anhydro-1,2-

dideoxy-4,8-di-O-methyl-1-[[[(phenylmethoxy)carbonyl]amino]-, 5-(hydrogen sulfate) (9CI)

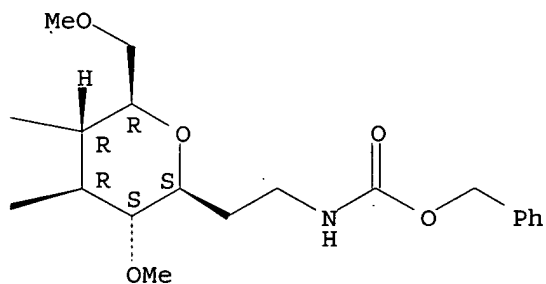
MF C49 H77 N O44 S5

Absolute stereochemistry.

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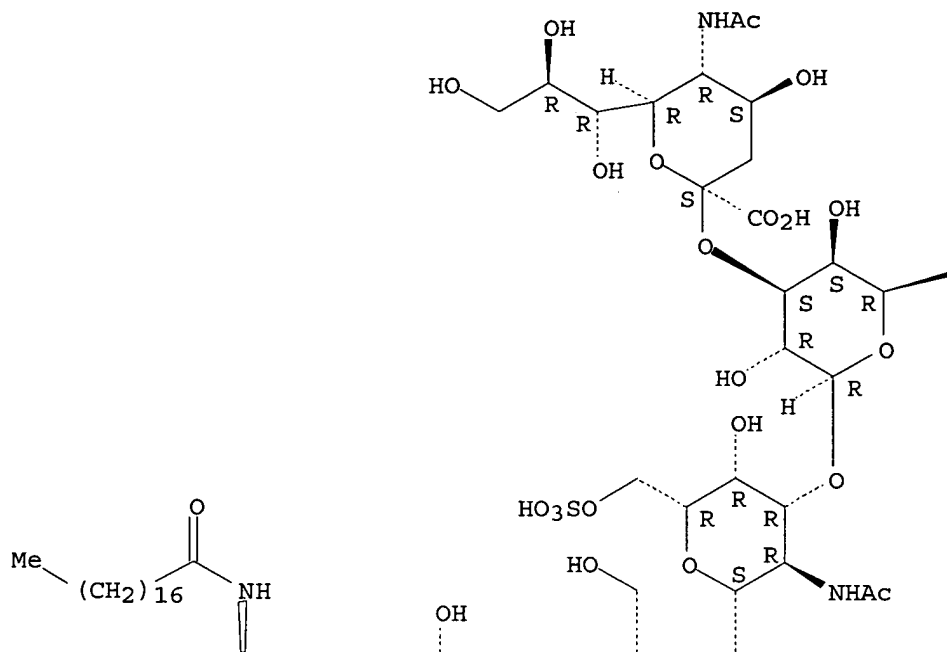


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

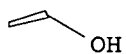
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranosyl]oxy]methyl]-2-hydroxy-3-heptadecenyl]-, trisodium salt (9CI)  
 MF C73 H131 N3 O37 S2 . 3 Na

Absolute stereochemistry.  
 Double bond geometry as shown.

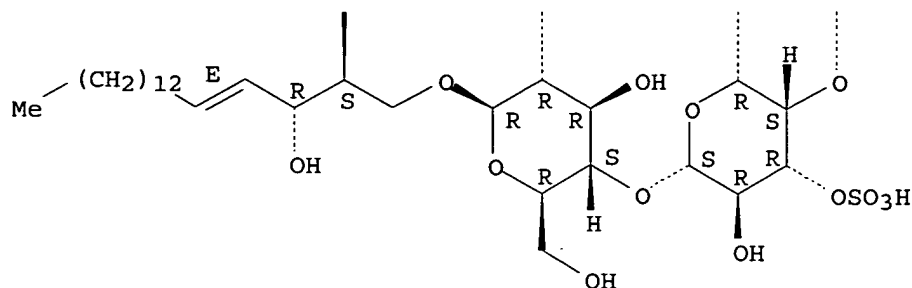
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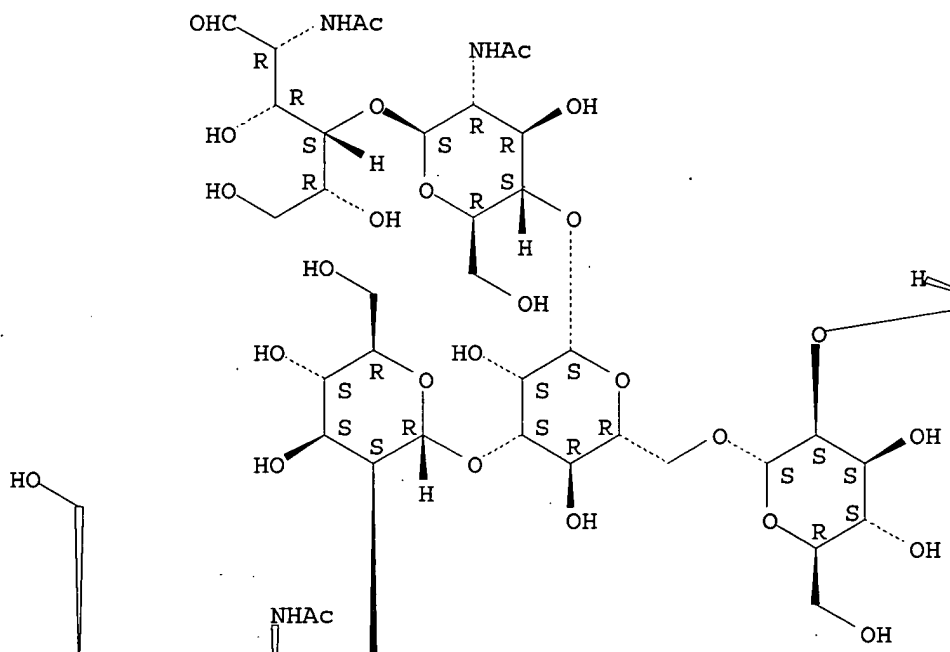
● 3 Na

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

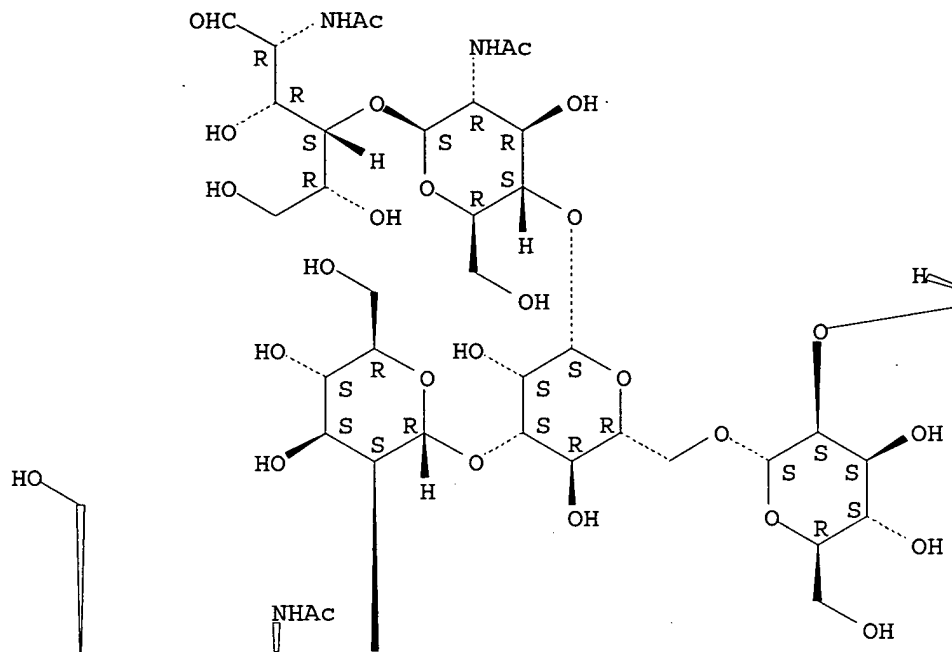
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN D-Glucose, O-2-(acetylamino)-2-deoxy-4-O-sulfo-.beta.-D-galactopyranosyl-  
 (1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-  
 (1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-(N-acetyl-  
 .alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-  
 (1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-  
 (1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-  
 mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-  
 glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI)  
 MF C75 H124 N6 O57 S

Absolute stereochemistry.

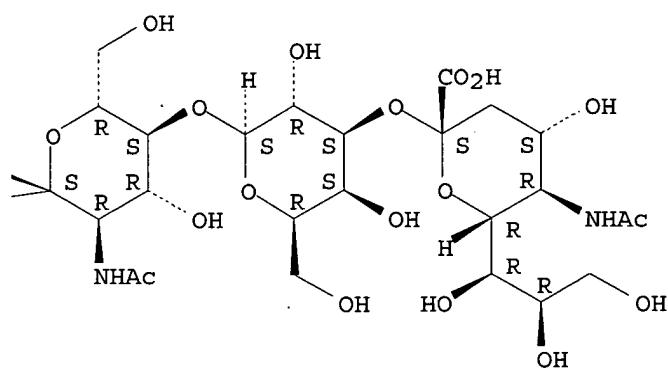
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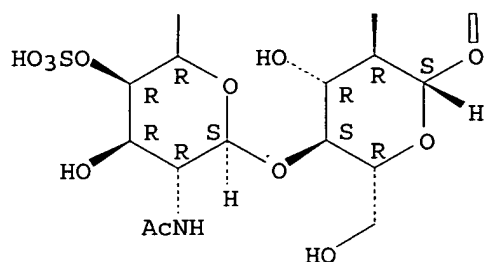
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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

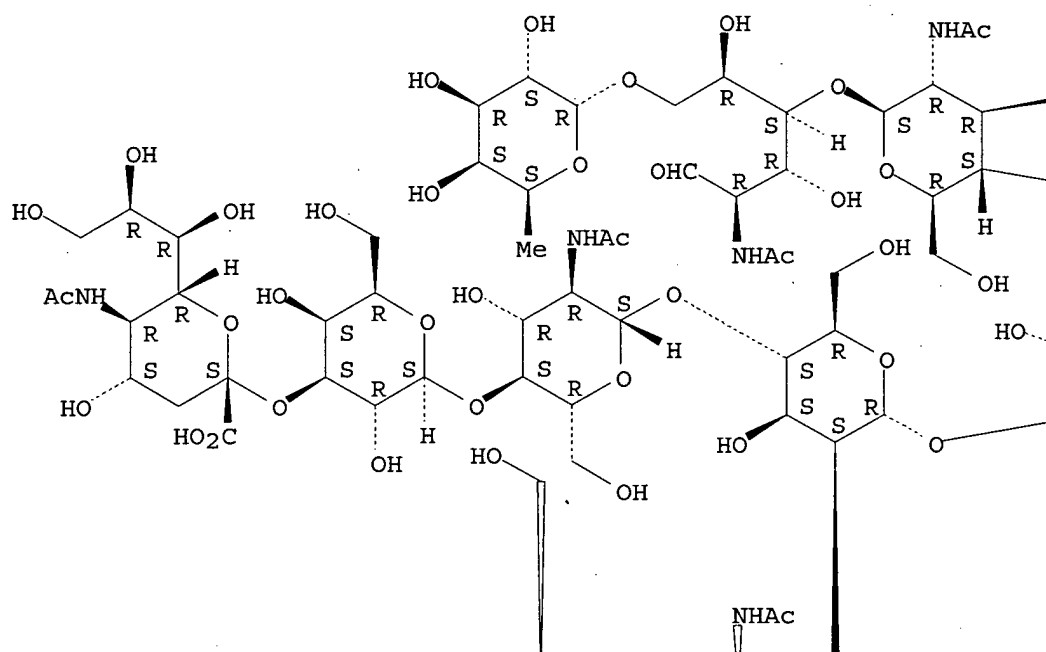
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)

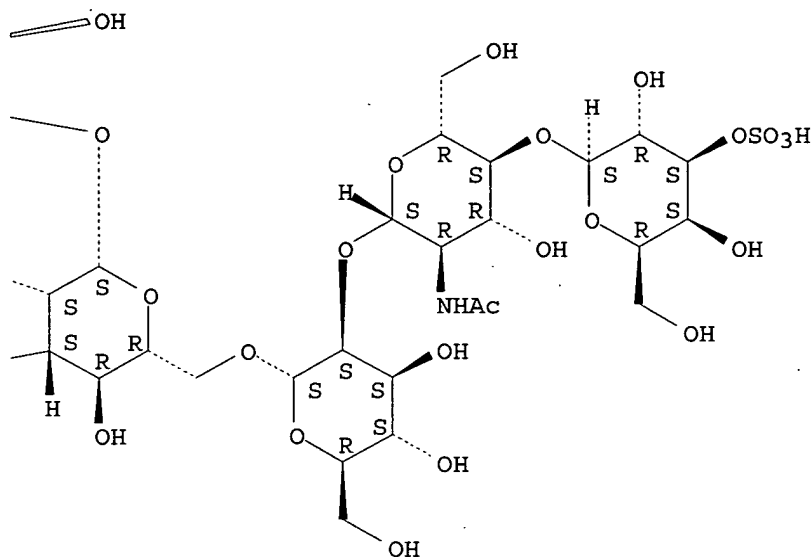
MF C93 H154 N6 O74 S2

Absolute stereochemistry.

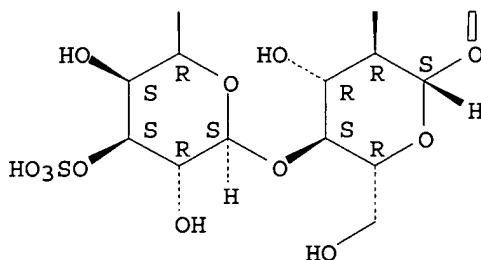
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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

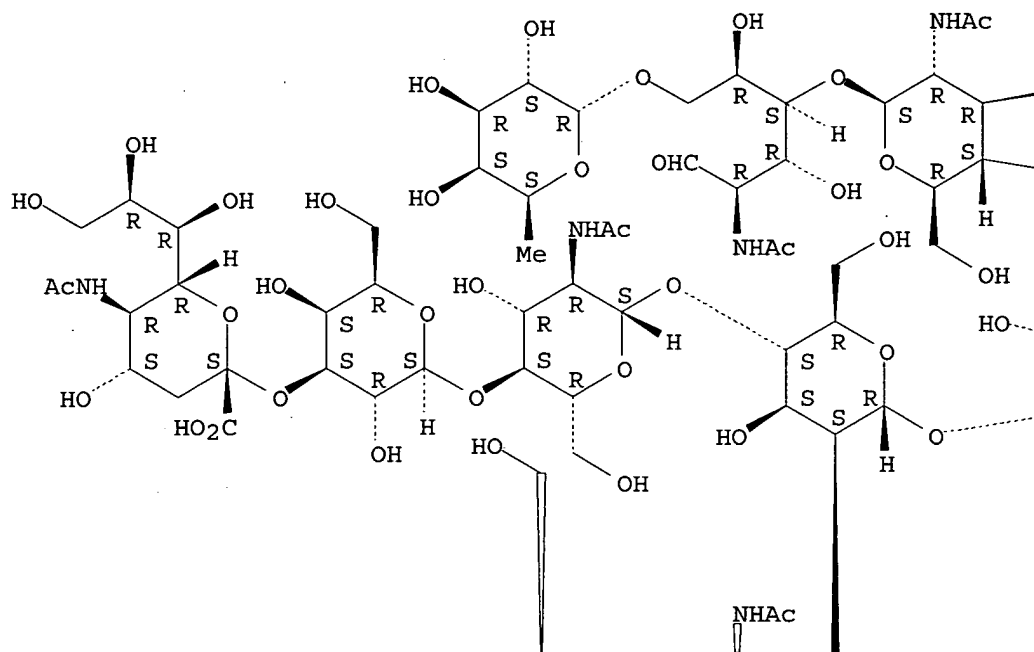
IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)

MF C129 H211 N9 O97 S

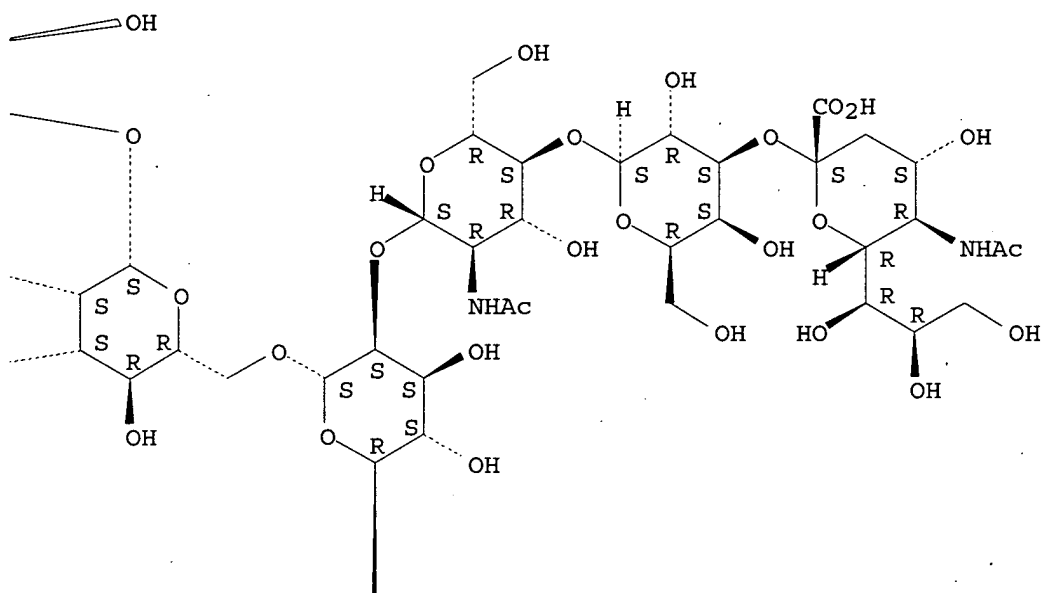


Absolute stereochemistry.

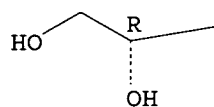
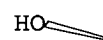
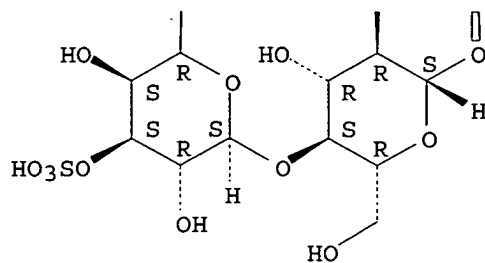
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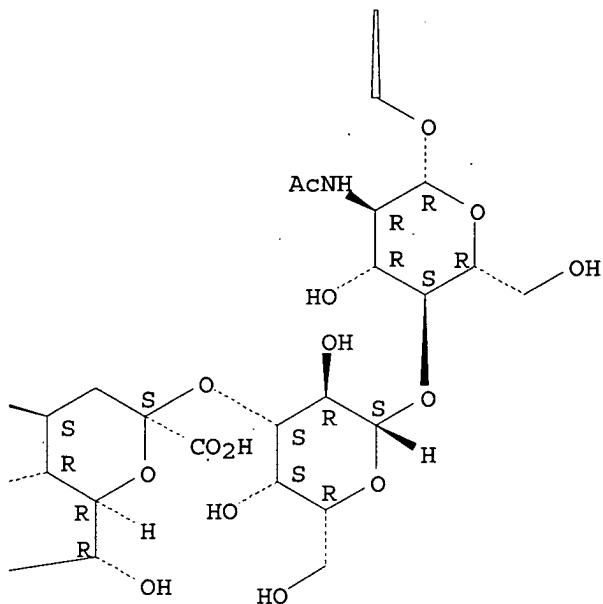
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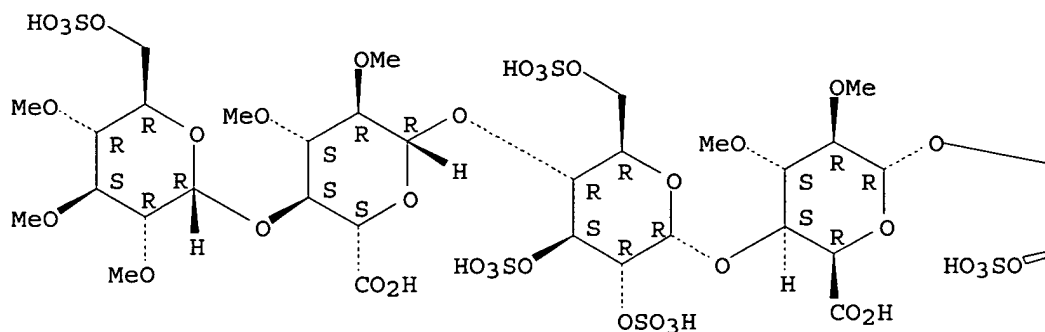


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

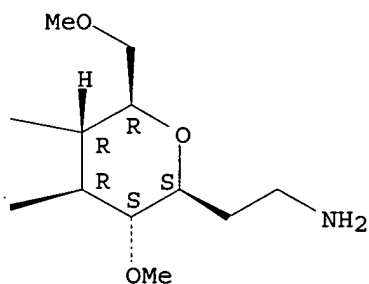
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN D-glycero-D-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.6)-1-amino-3,7-anhydro-1,2-dideoxy-4,8-di-O-methyl-, 5-(hydrogen sulfate) (9CI)  
 MF C41 H71 N O42 S5

Absolute stereochemistry.

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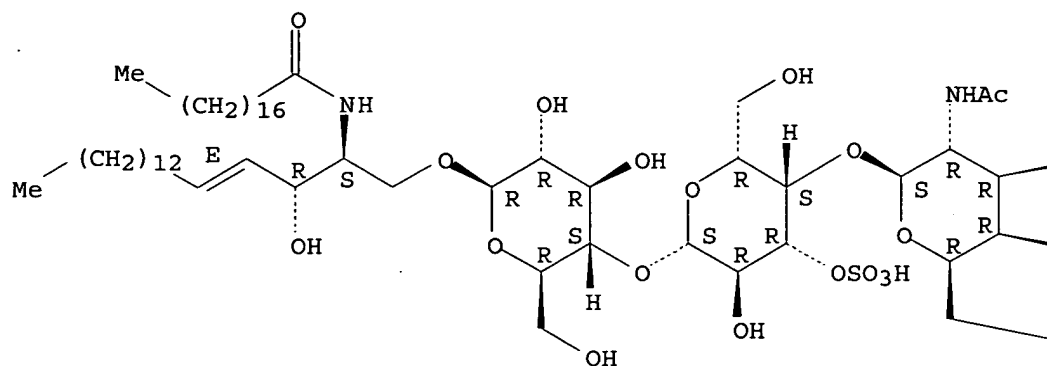


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-.beta.-D-glucopyranosyl]oxy]methyl]-2-hydroxy-3-heptadecenyl]-, trisodium salt (9CI)  
 MF C73 H131 N3 O37 S2 . 3 Na

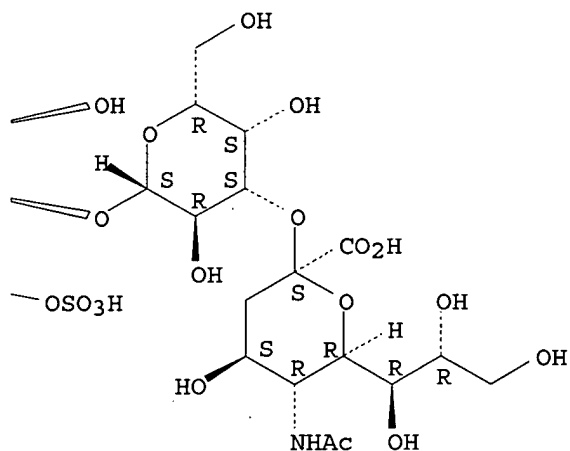
Absolute stereochemistry. Rotation (-).  
 Double bond geometry as shown.

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● 3 Na

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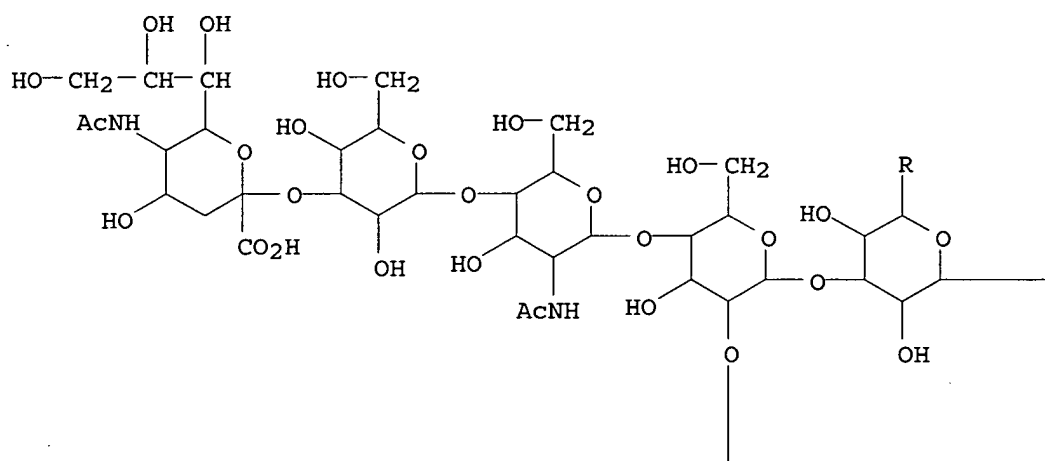
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN D-Glucose, O-2-(acetyl-amino)-2-deoxy-4-O-sulfo-.beta.-D-galactopyranosyl-  
 (1.fwdarw.4)-O-2-(acetyl-amino)-2-deoxy-.beta.-D-glucopyranosyl-  
 (1.fwdarw.2)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-  
 galactopyranosyl-(1.fwdarw.4)-2-(acetyl-amino)-2-deoxy-.beta.-D-  
 glucopyranosyl-(1.fwdarw.4)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-

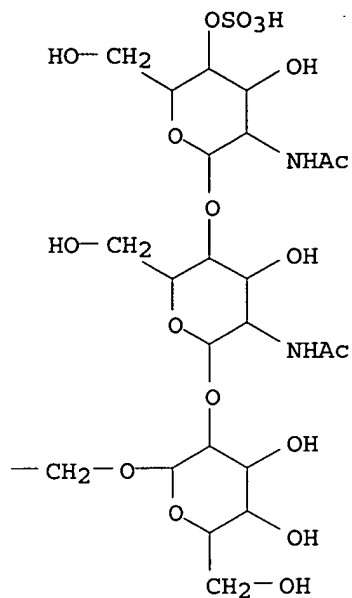
2-(acetylamino)-2-deoxy-4-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-  
 2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-  
 mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-  
 (acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-  
 .alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)

MF C97 H160 N8 O74 S2

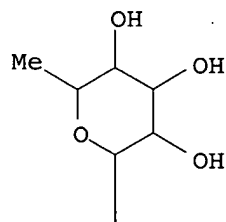
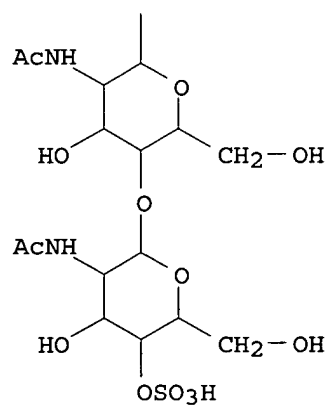
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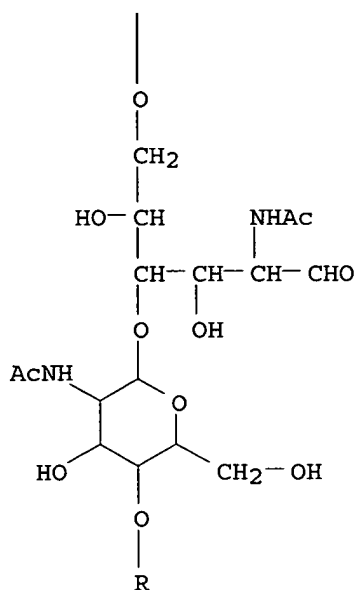
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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

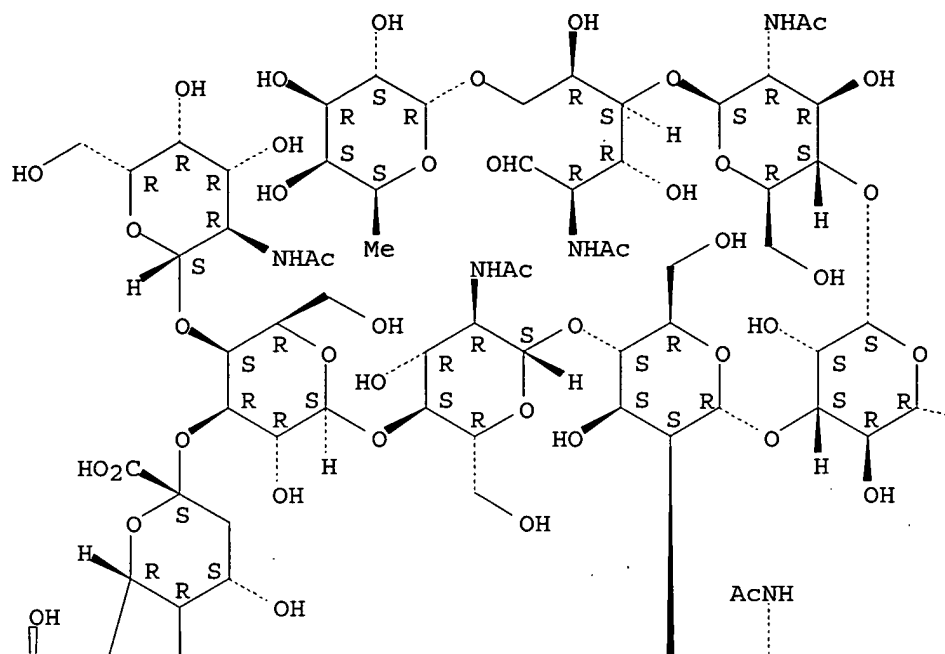
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.3)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-.alpha.-D-mannopyranosyl-(1.fwdarw.6)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)

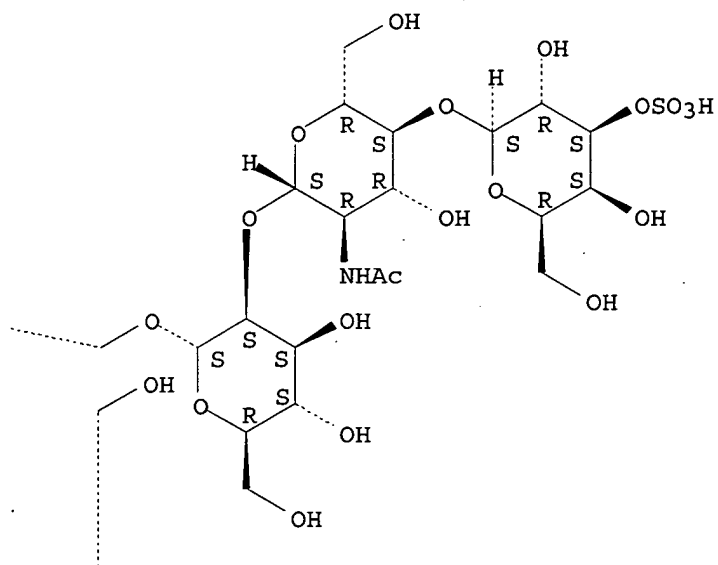
MF C101 H167 N7 O79 S2

Absolute stereochemistry.

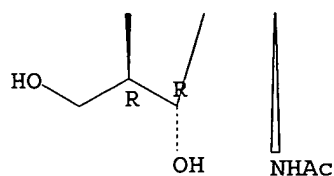
PAGE 1-A



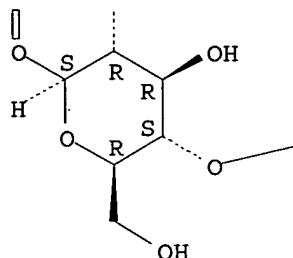
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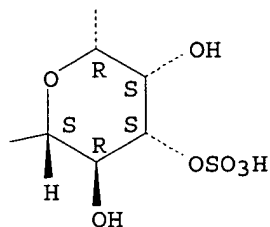




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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

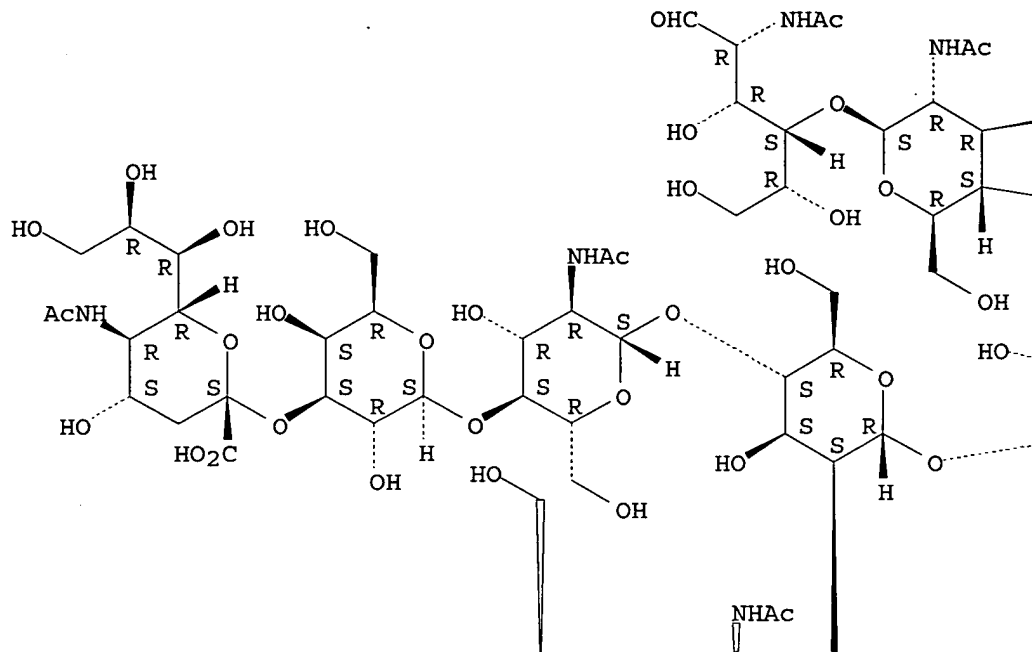
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI)

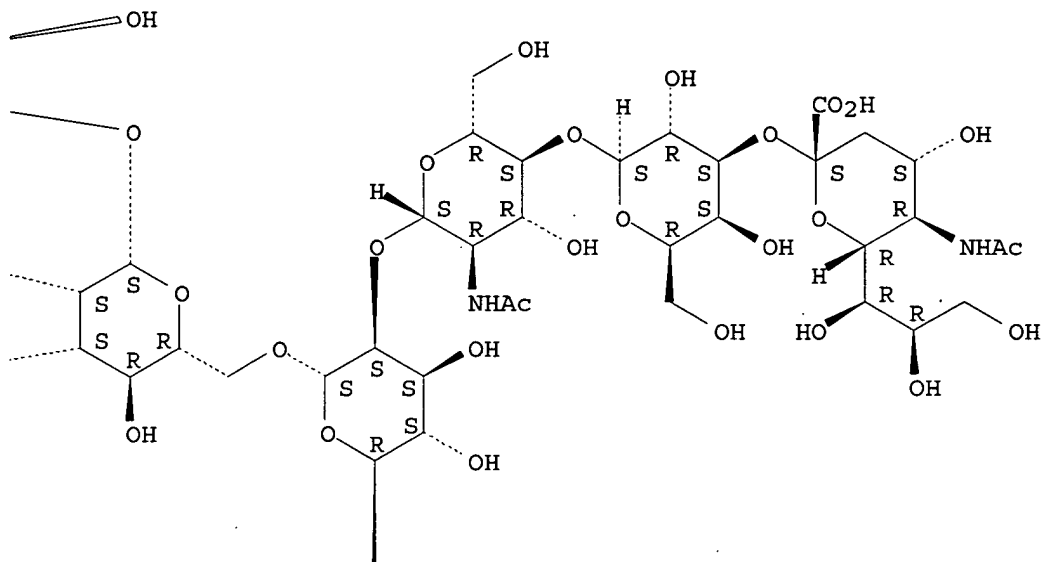
MF C123 H201 N9 O93 S

Absolute stereochemistry.

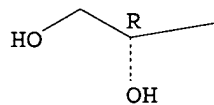
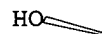
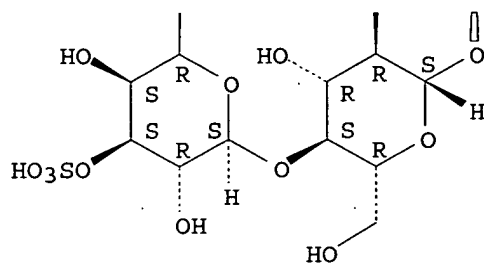
PAGE 1-A



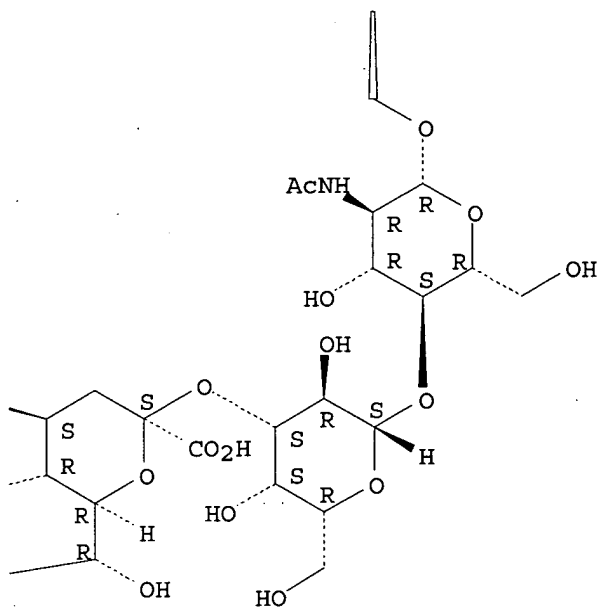
PAGE 1-B



PAGE 2-A



PAGE 2-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

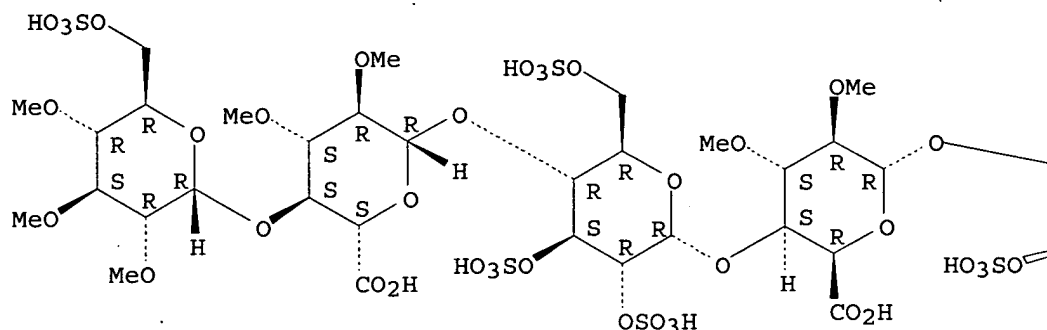
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN D-glycero-D-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-

glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.6)-3,7-anhydro-1,2-dideoxy-4,8-di-O-methyl-1-[[[(2R)-1-oxo-2,3-bis[[[phenylmethoxy)carbonyl]amino]propyl]amino]-, 5-(hydrogen sulfate) (9CI)

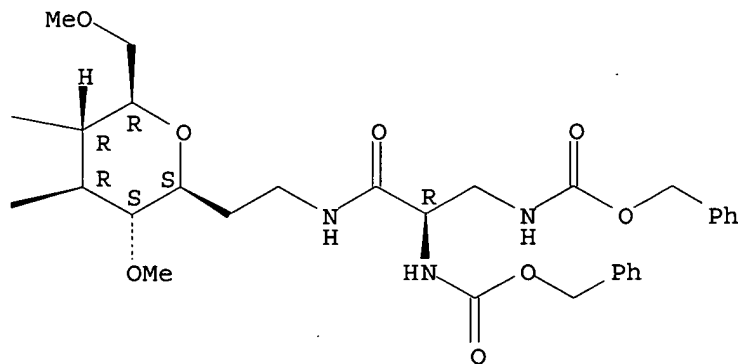
MF C60 H89 N3 O47 S5

Absolute stereochemistry.

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L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.3)-O-4-O-acetyl-2-(acetamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-acetyl-.beta.-D-glucopyranosyl]oxy]methyl]-2-(benzoyloxy)-3-heptadecenyl]- (9CI)

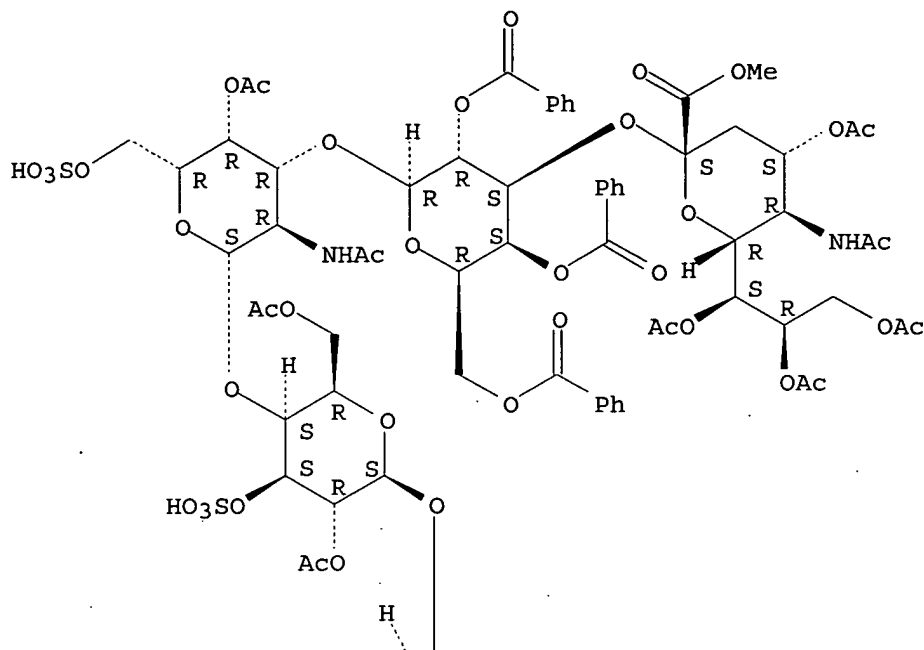
MF C122 H169 N3 O51 S2

CI COM

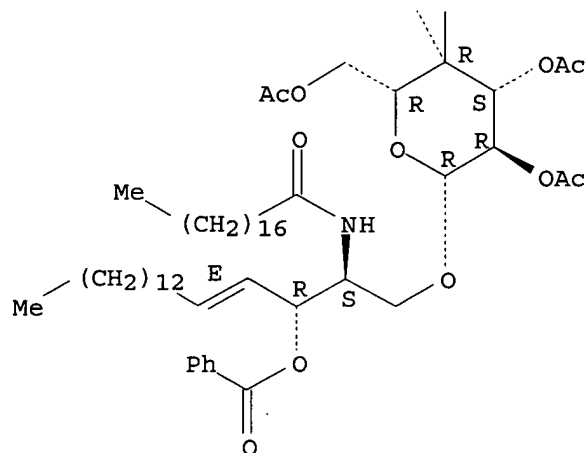
Absolute stereochemistry.

Double bond geometry as shown.

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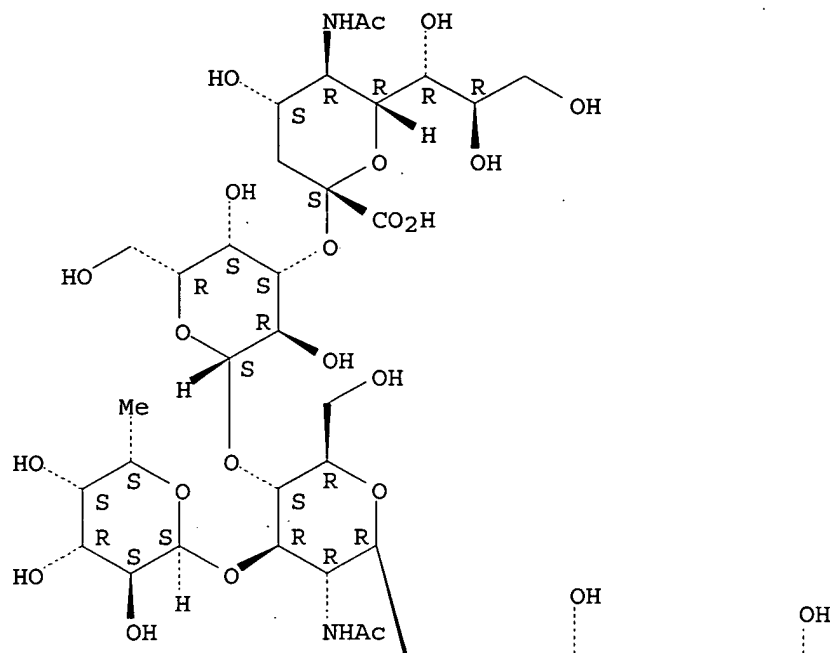
**\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\***

L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
IN .alpha.-D-Galactopyranoside, methyl O-(N-acetyl-.alpha.-neuraminosyl)-  
(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[O-6-deoxy-.alpha.-  
L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-  
glucopyranosyl-(1.fwdarw.6)-O-[3-O-sulfo-.beta.-D-galactopyranosyl-  
(1.fwdarw.3)]-2-(acetylamino)-2-deoxy- (9CI)

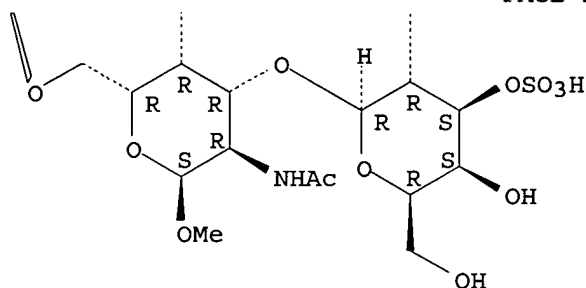
MF C46 H77 N3 O36 S  
CI COM

Absolute stereochemistry. Rotation (+).

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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

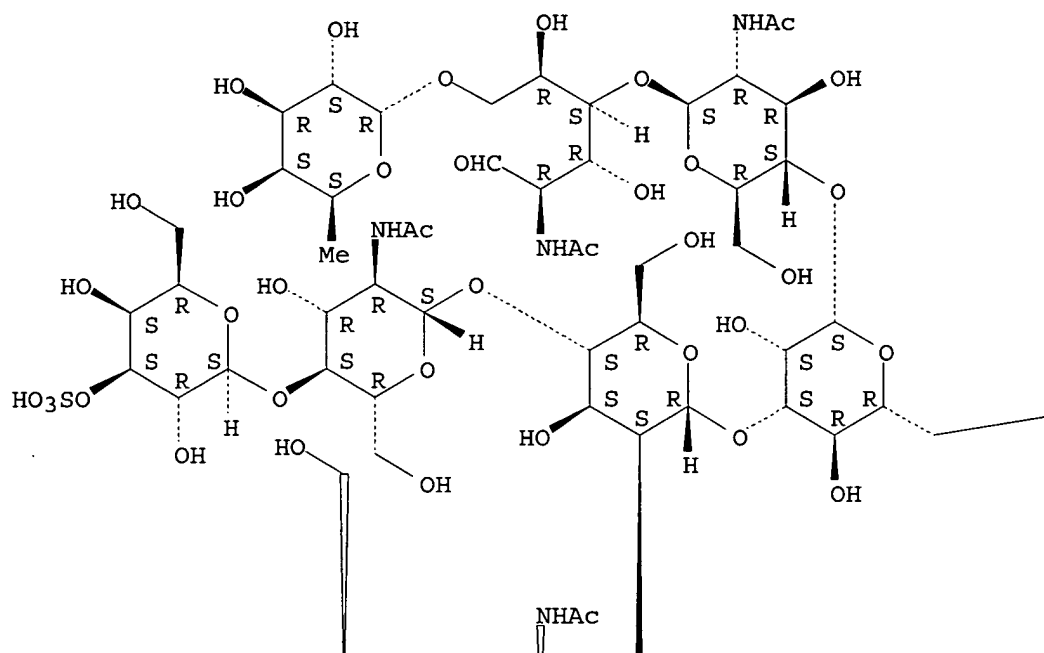
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
IN D-Glucose, O- (N-acetyl-.alpha.-neuraminosyl) - (2.fwdarw.3) -O-.beta.-D-galactopyranosyl- (1.fwdarw.4) -O-2- (acetylamino) -2-deoxy-.beta.-D-glucopyranosyl- (1.fwdarw.2) -O- [O- (N-acetyl-.alpha.-neuraminosyl) - (2.fwdarw.3) -O-.beta.-D-galactopyranosyl- (1.fwdarw.4) -2- (acetylamino) -2-deoxy-.beta.-D-glucopyranosyl- (1.fwdarw.6) ] -O-.alpha.-D-mannopyranosyl- (1.fwdarw.6) -O- [O- (N-acetyl-.alpha.-neuraminosyl) - (2.fwdarw.3) -O-.beta.-D-

galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)

MF C129 H211 N9 O97 S

Absolute stereochemistry.

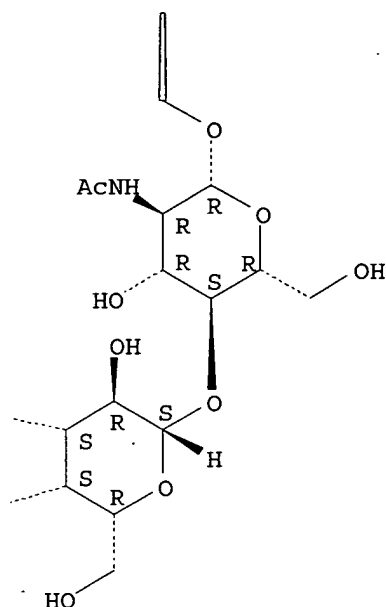
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The figure displays two chemical structures. The upper structure is a complex, branched polymer network representing the repeating unit of poly(2,6-dimethyl-1,3:4,6-dioxane-5,7-diol). It features multiple six-membered rings connected by oxygen atoms, with various substituents including hydroxyl groups (HO), methyl groups (CH<sub>3</sub>), and an acetamido group (NHAc). The lower structure is a single six-membered ring, likely representing the monomer or a specific repeating unit, showing substituents such as hydroxyl groups (HO), an acetamido group (AcNH), and a carboxylic acid group (CO<sub>2</sub>H).



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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

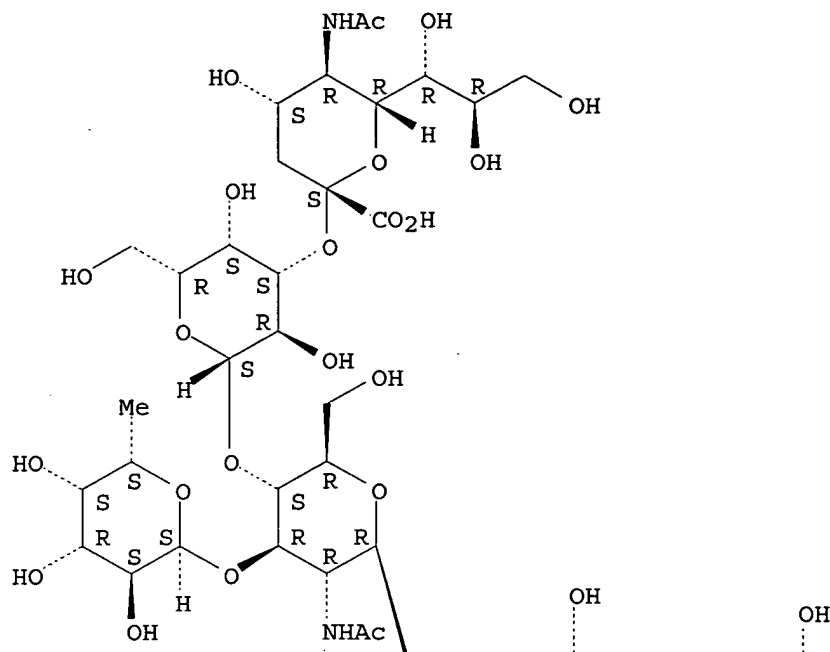
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN .alpha.-D-Galactopyranoside, methyl O-(N-acetyl-.alpha.-neuraminosyl)-  
 (2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[O-6-deoxy-.alpha.-  
 L-galactopyranosyl-(1.fwdarw.3)]-O-2-(acetylamino)-2-deoxy-.beta.-D-  
 glucopyranosyl-(1.fwdarw.6)-O-[3-O-sulfo-.beta.-D-galactopyranosyl-  
 (1.fwdarw.3)]-2-(acetylamino)-2-deoxy-, monosodium salt (9CI)

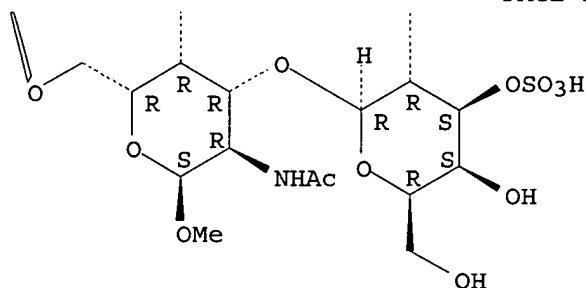
MF C46 H77 N3 O36 S . Na

Absolute stereochemistry. Rotation (+).

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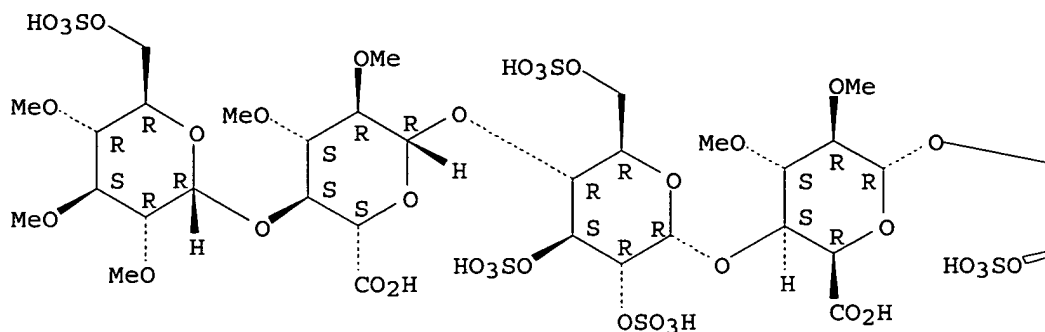


● Na

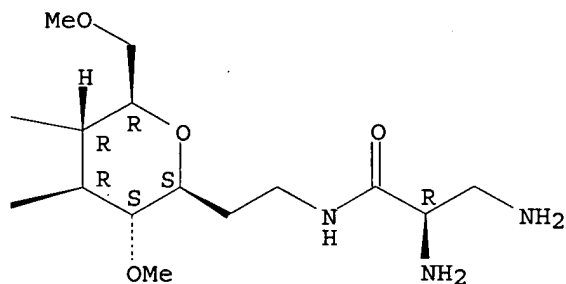
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN D-glycero-D-gulo-Octitol, O-2,3,4-tri-O-methyl-6-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.beta.-D-glucopyranuronosyl-(1.fwdarw.4)-O-2,3,6-tri-O-sulfo-.alpha.-D-glucopyranosyl-(1.fwdarw.4)-O-2,3-di-O-methyl-.alpha.-L-idopyranuronosyl-(1.fwdarw.6)-3,7-anhydro-1,2-dideoxy-1-[[ (2R)-2,3-diamino-1-oxopropyl]amino]-4,8-di-O-methyl-, 5-(hydrogen sulfate) (9CI)  
 MF C44 H77 N3 O43 S5

Absolute stereochemistry.

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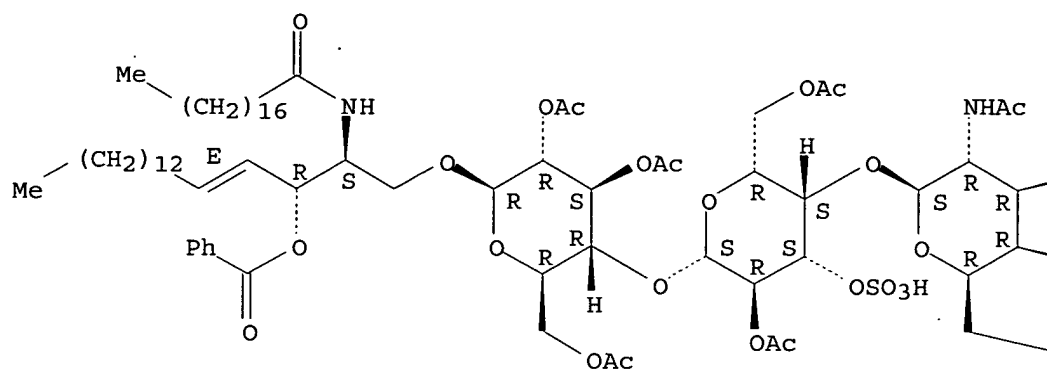


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

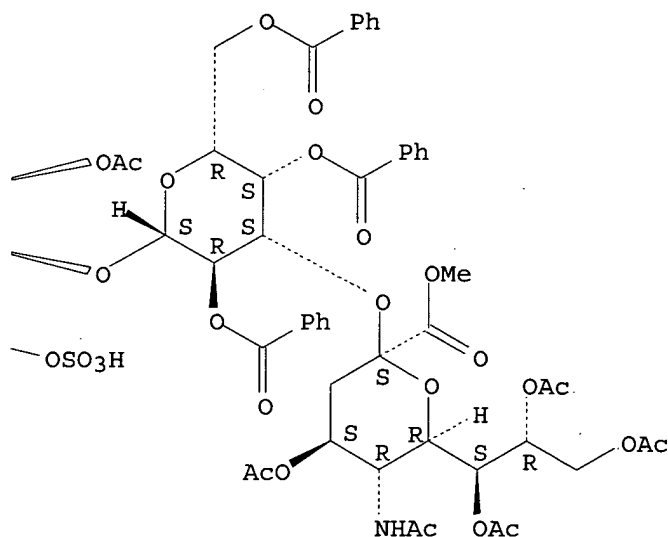
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN Octadecanamide, N-[(1S,2R,3E)-1-[[[O-(N-acetyl-4,7,8,9-tetra-O-acetyl-1-methyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-2,4,6-tri-O-benzoyl-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-3-O-acetyl-2-(acetylamino)-2-deoxy-6-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2,6-di-O-acetyl-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2,3,6-tri-O-acetyl-.beta.-D-glucopyranosyl]oxy]methyl]-2-(benzoyloxy)-3-heptadecenyl]- (9CI)  
 MF C122 H169 N3 O51 S2  
 CI COM

Absolute stereochemistry.  
 Double bond geometry as shown.

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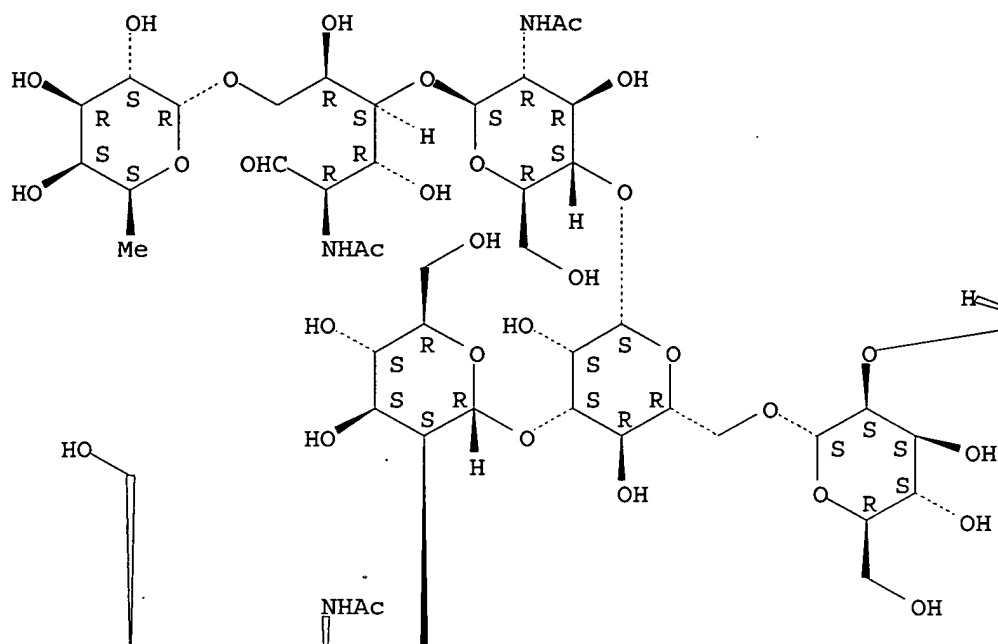


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

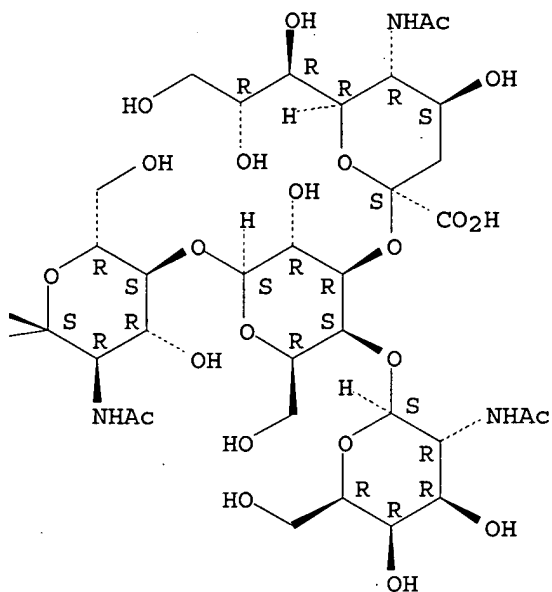
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN  
 IN D-Glucose, O-2-(acetylamino)-2-deoxy-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-[N-acetyl-.alpha.-neuraminosyl-(2.fwdarw.3)]-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-2-(acetylamino)-2-deoxy-4-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-O-[6-deoxy-.alpha.-L-galactopyranosyl-(1.fwdarw.6)]-2-(acetylamino)-2-deoxy- (9CI)  
 MF C89 H147 N7 O66 S

Absolute stereochemistry.

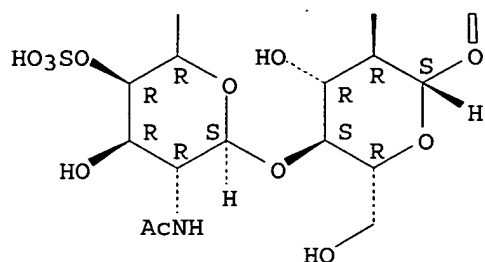
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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

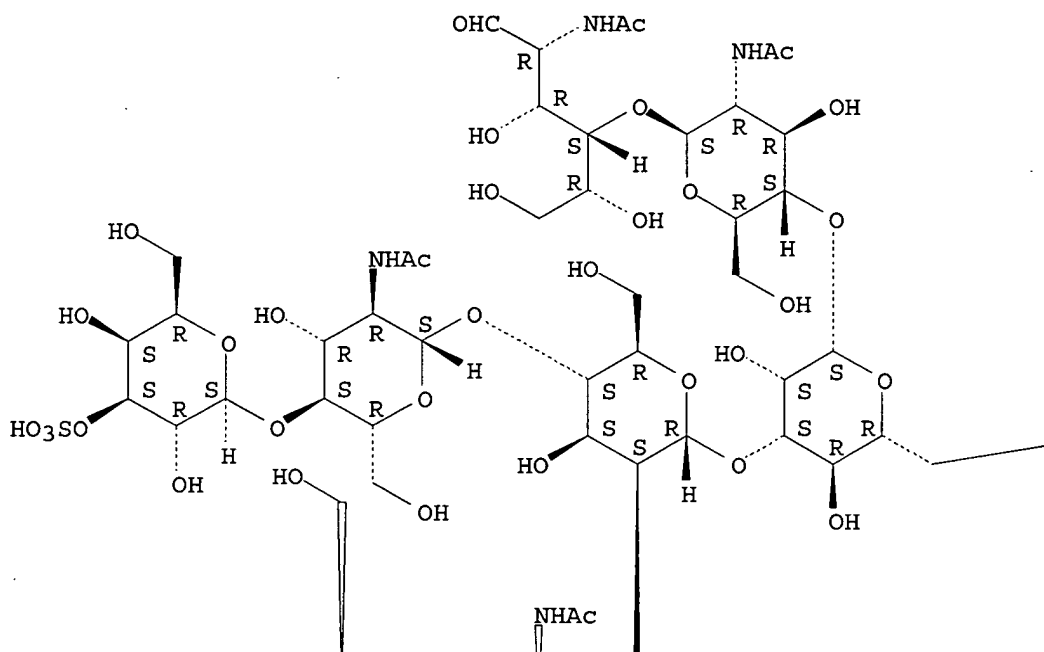
L12 59 ANSWERS REGISTRY COPYRIGHT 2004 ACS on STN

IN D-Glucose, O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.6)]-O-.alpha.-D-mannopyranosyl-(1.fwdarw.6)-O-[O-(N-acetyl-.alpha.-neuraminosyl)-(2.fwdarw.3)-O-.beta.-D-galactopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.2)-O-[O-3-O-sulfo-.beta.-D-galactopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)]-.alpha.-D-mannopyranosyl-(1.fwdarw.3)]-O-.beta.-D-mannopyranosyl-(1.fwdarw.4)-O-2-(acetylamino)-2-deoxy-.beta.-D-glucopyranosyl-(1.fwdarw.4)-2-(acetylamino)-2-deoxy- (9CI)

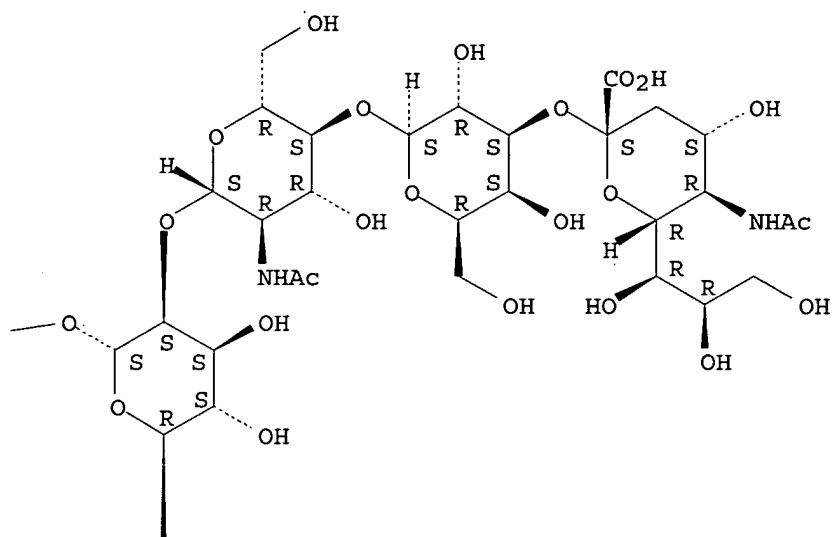
MF C123 H201 N9 O93 S

Absolute stereochemistry.

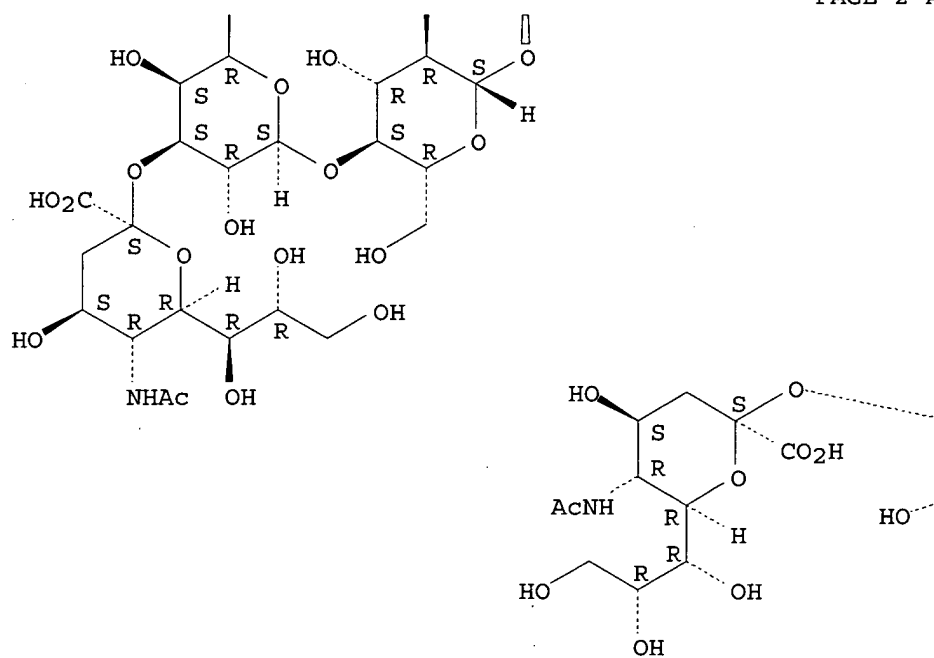
PAGE 1-A



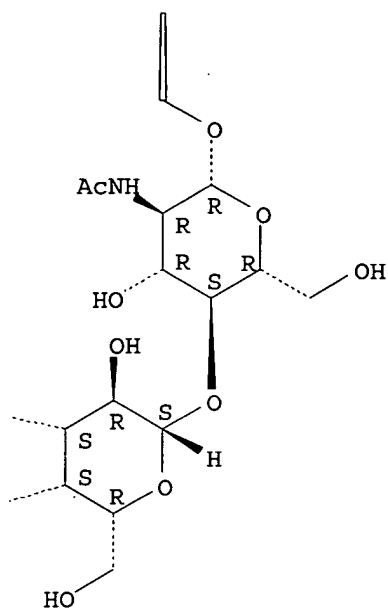
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PAGE 2-B



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*